Pre & Post Closure Groundwater Sampling Plan

AOC 3 – No. 1 Landfarm

Hess Corporation – Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey
NJDEP PI# 006148
ISRA Case No. E20130449
EPA ID No. NJD045445483

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1.0 INTRODUCTION

On behalf of Hess Corporation (Hess), Earth Systems, Inc. (Earth Systems) has prepared this Pre & Post Closure Groundwater Sampling Plan for Area of Concern (AOC) 3 – No. 1 Landfarm located at the Hess Corporation Former Port Reading Complex (Site or HC-PR), located at 750 Cliff Road, in Port Reading (Woodbridge Township), Middlesex County, New Jersey:

A United States Geological Survey (USGS) 7.5-minute series quadrangle map (Arthur Kill, New Jersey), depicting the facility location is presented as **Figure 1** and **Figure 2** presents the Site layout.

Due to historic operations, the Site is jointly regulated by both the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA). The NJDEP Industrial Site Recovery Act (ISRA) was triggered when Hess Corporation executed an agreement to sell the Port Reading Complex to Buckeye in 2013. The Site is regulated under USEPA's Resource Conservation and Recovery Act (RCRA).

A Preliminary Assessment (PA) Report was submitted to the NJDEP and the USEPA on October 9, 2015. A total of 117 AOCs were identified in the PA (**Figure 3.1** through **3.5**). Earth Systems concluded that, of the total number of AOCs identified at the Site, 62 AOCs required further investigation. A Site Investigation (SI) Report was submitted to the NJDEP and USEPA on November 7, 2015. The NJDEP provided several comment letters for the SI. The following is a list of the dates of the comment letters and responses:

NJDEP Comment Letter Date	Response to Comment (RTC) Date
August 10, 2017	December 20, 2017
June 9, 2020	July 31, 2020
December 6, 2018 (Ann Charles NJDEP)	October 19, 2020
December 6, 2018 (Jill Monroe NJDEP)	October 19, 2020
November 17, 2020	February 17, 2021

The USEPA issued a Hazardous and Solid Waste Amendments (HSWA) Permit (No. NJD045445483) for the Port Reading facility effective May 1, 1988. On November 14, 1995, HC-PR was informed, via New Jersey Department of Environmental Protection (NJDEP) correspondence, that the Bureau of Federal Case Management (BFCM) would assume oversight of the landfarms in addition to other applicable areas of concern. As per the permit, quarterly groundwater monitoring is conducted at the No. 1 Landfarm for the following parameters:

No. 1 Landfarm (as per the October 24, 1984, Draft Interim NJPDES Permit #0028878):

- Select VOCs
- Select Semi-Volatile Organic Compounds (SVOCs)
- Metals

- Various General Chemistry parameters

In addition to the collection of quarterly groundwater samples for the No. 1 Landfarm; an untreated leachate sample is also collected triannually and soil composite sampling is conducted annually.

Analytical results for all sampling is summarized in the Semi-Annual Report, which is submitted in January and July of each year.

As per the Draft November 12, 2020, NJDEP comment letter and subsequent meeting on January 12, 2021; the NJDEP requested that a new groundwater monitoring plan be proposed for the No. 1 Landfarm, for both pre- and post-closure (**Appendix A**).

In accordance with the New Jersey Technical Requirements for Site Remediation (TRSR) (7:26E-4.1d), this Pre & Post Closure Groundwater Monitoring Plan is being submitted for approval since the Site is regulated under RCRA, in addition to being subject to reporting requirements under ISRA.

2.0 BACKGROUND

2.1 Site Description and History

The Site is an approximate 223-acre irregularly shaped parcel, situated in an industrially developed waterfront area. The Site is identified as Block 756, Lot 3; Block 756.01, Lots 1.02, 2, and 3; Block 756.02, Lots 1 and 8; Block 757, Lot 1; Block 760, Lot 6; Block 760.01, Lots 2 and 3; Block 760.02, Lots 1, 2, and 3; Block 1096.01, Lot 6; and Block 664.01, Lots 1.01 and 1.02.

The Site is located east of Cliff Road and abuts the southern property boundary of the Conrail Port Reading Rail yard. Immediately east-southeast of the Site is the Arthur Kill shipping channel, and to the southwest is the PSE&G Sewaren Generating facility. The former Port Reading Coal Docks, currently owned by Prologis Corporation, are located to the northeast. Port Reading Avenue is located to the northwest. A mixture of industrial and commercial properties are located to the west. Residential properties are located up-gradient to the northwest, and an industrial property is located to the south.

The facility formerly processed low sulfur gas oils and residuals as feed to a Fluidized Catalytic Cracking Unit (FCCU) that converted gas oil into gasoline, fuel oil, and other hydrocarbon products (e.g. methane, ethane, and liquid petroleum gas). The Site operations were initiated in 1958 with a Crude Topping Unit and underwent various expansions between 1958 and 1970. In 1974, refining operations were suspended, and the facility operated only as a bulk storage and distribution terminal until 1985. In April 1985, following a retrofit, the facility resumed refining operations. The refinery portion of the facility was demolished in 2015, and currently the Site is operated only as a bulk storage and distribution terminal by Buckeye.

The following is a brief description AOC 3 – No. 1 Landfarm:

AOC 3 – No. 1 Landfarm

The No. 1 Landfarm began operations in December 1985 under a revised Part A Interim Status Permit granted by the NJDEP on April 26, 1984, and the RCRA Industrial Waste Management Facility (IWMF) Operating Permit (Interim NJPDES Discharge to Groundwater Permit #0028878 issued in April 1985) for operation of the No. 1 Landfarm.

The No. 1 Landfarm is lined with an impermeable compacted clay liner. Above the clay liner is a leachate collection system, which collects water that that has percolated through the treatment zone of the Landfarm. The leachate collection system was designed not to allow any leachate (soil-pore water) discharges into the groundwater.

The Landfarm was permitted to treat four (4) RCRA hazardous waste streams - API Separator Sludge (K-051), heat exchanger bundle cleaning sludge (K-050), leaded tank bottoms (K-052), and Tetraethyl Lead (TEL) tank bottoms (P-110).

A RAW was submitted for the No. 1 Landfarm in 2016. The following is a brief summary

of the status of the No. 1 Landfarm:

- The 100% Soil RAD for the landfarm engineering control was submitted in May 2019.
- Based on October 2019 NJDEP/USEPA comments, a revised 100% Soil RAD for was submitted on December 17, 2019.
- The NJDEP/USEPA issued an approval letter for the 100% design on April 28, 2020.
- The following permits were submitted in June 2020 and have been approved by the NJDEP on the dates provided:
  - Soil Erosion & Sediment Control Plan (Freehold Soil Conservation District), approved on August 17, 2020
  - Flood Hazard Area Individual Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
  - Waterfront Development GP-11 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
  - Freshwater Wetland GP-4 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
  - NJPDES B4B Permit (NJDEP Wastewater Program), approved on September 15, 2020
  - Treatment Works Approval TWA-1 Permit (NJDEP Wastewater Program), deemed administratively complete on November 23, 2020
  - NJPDES Individual Permit (NJDEP Stormwater Program), approved and posted for public comment in May 2021, approved on August 1, 2021.

2.2 Site Topography and Surface Water

Topography of the Site and surrounding area is generally flat with a very gradual slope towards the Arthur Kill. The total difference in topographic relief on the developed portions of the Site is less than 5 feet. Surveyed ground surface elevations indicated that the developed portion of the property, which has an approximate total area of 223 acres, ranges in elevation from 5 to 10 feet above mean sea level (MSL) referenced to North American Vertical Datum on 1988 (NAVD88).

A detention basin (AOC 12) is located to the south of the AOCs addressed in this RIW. Stormwater enters the detention basin through overland flow.

2.3 Site Geology and Hydrogeology

The geology of the Site was determined from the data collected at the facility during the subsurface investigations and from the Geologic Map of the State of New Jersey. The Site is underlain by the Magothy and Raritan formations, which are the lowest members of the Cretaceous-age Coastal Plain physiographic sediments. The Raritan Formation consists of sands and clays of variable color and grain size, and the overlying Magothy

Formation consists of dark lignite sand and clay containing glauconite near the top. The western section of the Site is underlain by a thick clay unit, while marsh deposits underlie the eastern and southeastern sections of the Site.

The shallow unconfined water table at the Site was encountered between approximately 2 and 11 feet below ground surface (bgs). Groundwater flows predominately to the southeast in the northwest portion of the Site and in an east-southeasterly direction in the central portion of the Site. Site wells located adjacent the Arthur Kill and North Drainage Ditch are affected by tidal influences. Wells located further away from the Arthur Kill are generally unaffected by tidal influences.

No. 1 Landfarm

The No. 1 Landfarm area was constructed on top of dredged sediments from the Arthur Kill, as indicated in the May 10, 1984 RCRA Part B Permit Application.

The North Drainage Ditch is a tidal stream adjacent to the north end of the Landfarm and runs southeast to northwest. This ditch is a transitory municipal storm water drainage channel.

During monitoring well L1-2 installation, a gravel layer was encountered that may have been applied as fill within the bed of a buried tributary to the Smith Creek, which existed prior to construction of the refinery facility. Smith Creek and its tributaries were filled in before and/or as the facility was constructed.

A pumping test was conducted on well L1-2 on April 3, 1987. The results from this pumping test were provided in the 2001 Comprehensive Management Plan (CMP). Based on this data, it has been estimated that the velocity of the groundwater in the No. 1 Landfarm area to be approximately 5-feet per day (feet/day). This velocity is consistent with typical gravelly sand horizons under the relatively steep hydraulic gradient observed in this area. This is more than an order of magnitude faster than other observed locations at the facility. Given the tidal fluctuations and constantly cycling hydraulic gradients, overall groundwater velocity near No. 1 Landfarm is expected to be less than 1-foot per day.

A groundwater contour map for the No. 1 Landfarm has been included as **Figure 4.**

A total of seven (7) monitoring wells are associated with the investigation of groundwater impacts for AOC 3.

A “Well Manual” contains monitoring well documentation for all Site wells (permits, records, Form A’s, Form B’s, and logs). The Well Manual is a stand-alone document that will be updated in real time as new wells or data are gathered and the updated Well Manual will be subsequently submitted to the NJDEP and USEPA.

The following table summarizes the construction details of these monitoring wells.

Well ID	AOC	Permit Number	Install Date	Screen Length (ft)	Depth of Well (bgs, ft)	Quarterly Sampling	Quarterly Gauging	Annual Sampling
L1-1	AOC 3 - No. 1 Landfarm	2600008068	10/18/1985	10	14.25	X	X	
L1-2	AOC 3 - No. 1 Landfarm	2600008065	10/18/1985	10	14	X	X	
L1-3	AOC 3 - No. 1 Landfarm	2600008066	10/19/1985	5	10.4	X	X	
L1-4	AOC 3 - No. 1 Landfarm	2600008067	10/18/1985	5	9	X	X	
SP-1	AOC 3 - No. 1 Landfarm	2600025338	6/6/1991	10	13		X	X
SP-2	AOC 3 - No. 1 Landfarm	2600025339	6/6/1991	10	13		X	X
SP-3	AOC 3 - No. 1 Landfarm	2600025340	6/5/1991	10	13		X	X

2.4 Site Conceptual Site Model

A Conceptual Site Model (CSM) has been prepared for the Site and submitted to the NJDEP/EPA as a stand-alone document on March 29, 2021. The CSM includes a discussion and associated figures depicting the transport, migration, and potential impacts to human and ecological receptors on and off the Site. The CSM will be continually updated as additional data and information are gathered across the Site and the revised/updated CSM will be subsequently submitted to the NJDEP and USEPA.

3.0 REGULATORY COMPLIANCE

3.1 Identification of Applicable Standards

The applicable Soil Remediation Standards (SRS) for the Site are the NJDEP Residential Soil Remediation Standards (RSRS), Non-Residential Soil Remediation Standards (NRSRS), the recently adopted Migration to Groundwater (MGW) Standards, and the Groundwater Quality Standards (GWQS). For Extractable Petroleum Hydrocarbon (EPH), the applicable regulatory standard for the Site is EPH Category-2, which is determined by using the NJDEP EPH Calculator.

Analytical results are evaluated and flagged on the final results tables if the laboratory method detection limit (mdl) exceeds the applicable standard. If the mdl exceeds the GWQS, a determination will be made if the compound is a contaminant of concern for the AOC and if additional sampling (in addition to routine monitoring) is necessary.

3.2 Variance/Deviation

In accordance with Hess and Buckeye safety protocols, all borings must use ‘soft digging’ techniques from the surface to 6 or 8 feet below grade, depending on the location of the boring in relation to piping runs or tanks. ‘Soft digging’ techniques include the use of a hand auger and/or an air knife.

Any monitoring wells that are installed utilizing an air knife as part of pre-clearing will be allowed an additional two (2) weeks to stabilize prior to sample collection (for a total of 4 weeks from installation to sampling).

The Licensed Site Remediation Professional (LSRP) of record for the Site has determined that the installation/groundwater sample collection technique described above will achieve the objectives of the investigation and result in sufficient usable data.

4.0 ANALYTICAL RESULTS

4.1 AOC 3 – No. 1 Landfarm

The No. 1 Landfarm began operations in December 1985 under a revised Part A Interim Status Permit granted by the NJDEP on April 26, 1984 and the RCRA IWMF Operating Permit (Interim NJPDES Discharge to Groundwater Permit #0028878 issued in April 1985) for operation of the No. 1 Landfarm.

The No. 1 Landfarm is lined with an impermeable compacted clay liner. Above the clay liner is a leachate collection system, which collects water that that has percolated through the treatment zone of the Landfarm. The leachate collection system was designed not to allow any leachate (soil-pore water) discharges into the groundwater.

The Landfarm was permitted to treat 4 RCRA hazardous waste streams - API Separator Sludge (K-051), heat exchanger bundle cleaning sludge (K-050), leaded tank bottoms (K-052), and Tetraethyl Lead (TEL) tank bottoms (P-110).

As per the permit, annual composite soil sampling, quarterly groundwater sampling, and triannual leachate sampling is required as part of ongoing monitoring requirements for the No. 1 Landfarm. The following sections summarize the analytical results.

4.1.1 Soil Analytical Results (2017 through 2020)

The following section summarizes the soil samples that were collected annually, as per the permit, from the No. 1 Landfarm from 2017 through 2020.

Soil samples were collected from three zones in the No. 1 Landfarm and analyzed for VOCs, SVOCs, metals, and general chemistry parameters. The three zones are defined as follows: the Zone of Incorporation (ZOI) is the interval located 0.5 to 1 foot below grade, the Treatment Zone (TZ) is the interval located 1.5-3.0 feet below grade, and the Unsaturated Zone (UZ) is the interval located 3.0 to 4.0 feet below grade. Composite soil samples are collected from randomized locations (grids) in the defined zones and analyzed for the specified parameters.

Targeted VOCs were not detected over the applicable soil standards for all zones that were sampled. Several polyaromatic hydrocarbons (PAHs) were detected over applicable soil standards for the Treatment Zone and Unsaturated Zone samples. Several metals were also detected above applicable soil standards in all zones. The following table summarizes the exceedances. Soil sample results are summarized in **Table 1**.

Client Sample ID:		NJ Non-Residential Direct Contact Soil	NJ Residential Direct Contact Soil	ZOI (0.5-1.0')	TZ (1.5-3.0')	UZ (3.0-4.0')	ZOI (0.5-1.0)	TZ (1.5-3.0)	UZ (3.0-4.0)
Lab Sample ID:				JC72494-1	JC72494-2	JC72494-3	JC46933-1	JC46933-2	JC46933-3
Date Sampled:				8/23/2018	8/23/2018	8/23/2018	7/13/2017	7/13/2017	7/13/2017
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260C)									
Volatile Organic Compounds (VOCs)	mg/kg			< SRS	< SRS	< SRS	< SRS	< SRS	< SRS
MS Semi-volatiles (SW846 8270D)									
Benzo(a)pyrene	mg/kg	2	0.5	0.478	**0.595 J**	**2.85**	**0.76**	0.132	0.155
Dibenzo(a,h)anthracene	mg/kg	2	0.5	ND (0.19)	0.416 J	**0.591**	0.375	0.0501	0.0574
Metals Analysis									
Arsenic	mg/kg	19	19	**50.8**	**38.3**	13.1	**28.3**	9.4	12.5
Nickel	mg/kg	23000	1600	1270	751	186	491	115	157
Vanadium	mg/kg	1100	78	**90.2**	72.8	34.1	54.9	23.2	31.1
General Chemistry									
HEM Oil and Grease	mg/kg	-	-	12400	7380	6170	9700	4520	3560
Nitrogen, Total	mg/kg	-	-	6070	3470	797	2180	589	726

Client Sample ID:		NJ Non-Residential Direct Contact Soil	NJ Residential Direct Contact Soil	ZOI (0.0-1.5')	TZ (1.5-3.0')	VZ (3.0-4.0')	ZOI(0.5-1.0')	TZ(1.5-3.0')	UZ(3.0-4.0')
Lab Sample ID:				JD12200-1	JD12200-2	JD12200-3	JC93098-1	JC93098-2	JC93098-3
Date Sampled:				8/25/2020	8/25/2020	8/25/2020	8/12/2019	8/12/2019	8/12/2019
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260C)									
Volatile Organic Compounds (VOCs)	mg/kg			< SRS	< SRS	< SRS	< SRS	< SRS	< SRS
MS Semi-volatiles (SW846 8270D)									
Benzo(a)pyrene	mg/kg	2	0.5	0.171 J	0.451	**2.51**	0.171 J	0.451	**2.51**
Dibenzo(a,h)anthracene	mg/kg	2	0.5	ND (0.094)	0.254	**0.733**	ND (0.094)	0.254	**0.733**
Metals Analysis									
Arsenic	mg/kg	19	19	**57.2**	**62.5**	**25.8**	**75.2**	**22.9**	10.5
Nickel	mg/kg	23000	1600	1550	**1750**	348	**1710**	365	44
Vanadium	mg/kg	1100	78	**100**	**112**	52.6	**121**	54.5	34
General Chemistry									
HEM Oil and Grease	mg/kg	-	-	21700	27500	25200	10100	4730	2390
Nitrogen, Total	mg/kg	-	-	7550	7010	2230	9090	1850	402

ND – Non-Detect, NA – Not Analyzed, J- Estimated Concentration

4.1.2 Groundwater Analytical Results (2019 through 2021)

On a quarterly basis, groundwater samples are collected from monitoring wells L1-1 through L1-4, BG-2, and BG-3, and analyzed for select VOCs, SVOCs, metals, and general chemistry parameters in accordance with the NJPDES Permit #NJ0028878.

Groundwater analytical results are summarized on **Figures 5.1** through **5.3** and **Table 2**.

<u>VOCs</u>

Targeted VOCs were not detected in the groundwater samples at concentrations above the GWQS in all No. 1 Landfarm monitoring wells for the last eight (8) rounds of groundwater sampling.

<u>SVOCs</u>

Targeted SVOCs were detected in the groundwater samples at concentrations above the GWQS in several No. 1 Landfarm monitoring wells for the last eight (8) rounds of groundwater sampling. The following table summarizes the analytical results.

Well ID	Sample Date	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Hexachlorobenzene	1,4-Dioxane
Units		ug/l	ug/l	ug/l	ug/l	ug/l
GWQS		**0.1**	**0.1**	**0.2**	**0.02**	**0.4**
BG-2	7/10/2019	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.046)
BG-2	10/23/2019	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.047)
BG-2	1/21/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
BG-2	4/14/2020	0.0572	0.0639	0.143	ND (0.011)	ND (0.048)
BG-2	7/15/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
BG-2	10/7/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
BG-2	1/28/2021	**0.168**	0.0575	0.166	ND (0.011)	ND (0.050)
BG-2	4/13/2021	**0.166**	0.0645	0.167	ND (0.013)	ND (0.057)
BG-3	7/10/2019	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.046)
BG-3	10/23/2019	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
BG-3	1/21/2020	**0.554**	**0.233**	**0.297**	ND (0.011)	**0.755**
BG-3	4/15/2020	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
BG-3	7/15/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.048)
BG-3	10/7/2020	ND (0.024)	ND (0.035)	ND (0.046)	ND (0.012)	ND (0.053)
BG-3	1/28/2021	ND (0.023)	ND (0.033)	ND (0.043)	0.019	ND (0.050)
BG-3	4/13/2021	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-1	7/11/2019	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.049)
L1-1	10/23/2019	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.047)
L1-1	1/21/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-1	4/14/2020	0.0453 J	0.0392 J	0.0746	0.0149 J	ND (0.050)
L1-1	7/15/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
L1-1	10/7/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
L1-1	1/28/2021	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-1	4/13/2021	ND (0.024)	ND (0.035)	ND (0.045)	ND (0.012)	ND (0.052)
L1-2	7/10/2019	ND (0.022)	ND (0.032)	0.0428 J	**0.0304**	ND (0.046)
L1-2	10/23/2019	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.049)
L1-2	1/21/2020	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-2	4/14/2020	ND (0.023)	ND (0.033)	ND (0.043)	0.0135 J	ND (0.050)
L1-2	7/15/2020	ND (0.022)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.049)
L1-2	10/7/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
L1-2	1/28/2021	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-2	4/13/2021	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-3	7/10/2019	**0.194**	ND (0.032)	0.0463 J	ND (0.011)	ND (0.046)
L1-3	10/23/2019	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.049)
L1-3	1/21/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-3	4/15/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-3	7/15/2020	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-3	10/7/2020	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)
L1-3	1/28/2021	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-3	4/13/2021	ND (0.022)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.049)
L1-4	7/10/2019	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.046)
L1-4	10/23/2019	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.047)
L1-4	1/21/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-4	4/15/2020	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.011)	ND (0.048)
L1-4	7/15/2020	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-4	10/7/2020	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-4	1/28/2021	ND (0.023)	ND (0.033)	ND (0.043)	ND (0.011)	ND (0.050)
L1-4	4/13/2021	ND (0.022)	ND (0.032)	ND (0.042)	ND (0.011)	ND (0.049)

ND – Non-Detect, NA – Not Analyzed, J- Estimated Concentration

Metals

Select metals were detected in the groundwater samples at concentrations above the GWQS in several No. 1 Landfarm monitoring wells for the last eight (8) rounds of groundwater sampling. The following table summarizes the analytical results.

Well ID	Sample Date	Aluminum	Arsenic	Iron	Lead	Manganese	Sodium
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
GWQS		**200**	**3**	**300**	**5**	**50**	**50000**
BG-2	7/10/2019	ND (200)	**15.7**	**16400**	ND (3.0)	**165**	**98700**
BG-2	10/23/2019	<200	**6.1**	**4980**	<3.0	**102**	**105000**
BG-2	1/21/2020	<200	**7**	**3410**	<3.0	**57**	**67600**
BG-2	4/14/2020	**483**	**14.3**	**5840**	3.5	30.6	19700
BG-2	7/15/2020	<200	**15**	**4450**	<3.0	43.9	32300
BG-2	10/7/2020	**201**	**19.2**	**4970**	<3.0	49.2	49900
BG-2	1/28/2021	NA	**11.7**	**8200**	**11.6**	**64.7**	**235000**
BG-2	4/13/2021	NA	**7.6**	**2510**	3.3	19.3	38200
BG-3	7/10/2019	ND (200)	**6.4**	**10500**	ND (3.0)	**166**	16900
BG-3	10/23/2019	<200	**14**	**24500**	<3.0	**396**	49400
BG-3	1/21/2020	<200	**5.6**	**12100**	<3.0	**251**	32300
BG-3	4/15/2020	<200	**3.8**	**8380**	<3.0	**120**	27900
BG-3	7/15/2020	<200	**30.1**	**67000**	<3.0	**425**	32900
BG-3	10/7/2020	<200	**12.6**	**16400**	<3.0	**285**	40900
BG-3	1/28/2021	NA	**5.6**	**8530**	<3.0	**91.1**	28900
BG-3	4/13/2021	NA	<3.0	**6180**	<3.0	**198**	21900
L1-1	7/11/2019	**3830**	2.8	**5500**	**8.1**	44.2	**69000**
L1-1	10/23/2019	**8010**	**5.9**	**12000**	**16.8**	**61.2**	**50500**
L1-1	1/21/2020	**346**	<1.0	**469**	<3.0	<15	**55300**
L1-1	4/14/2020	**385**	<1.0	**440**	<3.0	<15	**53800**
L1-1	7/15/2020	**1660**	1.1	**1820**	3.5	16.7	**51100**
L1-1	10/7/2020	**4270**	3	**6770**	**10.7**	37	44000
L1-1	1/28/2021	NA	<3.0	273	<3.0	43.7	**141000**
L1-1	4/13/2021	NA	<3.0	<100	<3.0	**63.9**	**289000**
L1-2	7/10/2019	ND (200)	**22.6**	**14800**	ND (3.0)	**184**	**93900**
L1-2	10/23/2019	<200	**25.4**	**16800**	<3.0	**256**	**131000**
L1-2	1/21/2020	<200	**15.9**	**17100**	<3.0	**240**	**111000**
L1-2	4/14/2020	<200	**19**	**22400**	<3.0	**234**	**94500**
L1-2	7/15/2020	<200	**27.3**	**23000**	<3.0	**259**	**163000**
L1-2	10/7/2020	<200	**29.3**	**19400**	<3.0	**257**	**153000**
L1-2	1/28/2021	NA	**18.2**	**14600**	<3.0	**228**	**114000**
L1-2	4/13/2021	NA	**15.9**	**14100**	<3.0	**217**	**106000**
L1-3	7/10/2019	ND (200)	**13.5**	**21500**	ND (3.0)	**877**	**89600**
L1-3	10/23/2019	<200	**21.8**	**71200**	<3.0	**2630**	**662000**
L1-3	1/21/2020	<200	**8.7**	**14100**	<3.0	**525**	**80200**
L1-3	4/15/2020	**341**	**5.2**	**30400**	<3.0	**795**	**114000**
L1-3	7/15/2020	**983**	**12.5**	**6650**	3.5	**204**	**56600**
L1-3	10/7/2020	**212**	**28.2**	**24700**	<3.0	**596**	**118000**
L1-3	1/28/2021	NA	**10**	**7970**	<3.0	**222**	45900
L1-3	4/13/2021	NA	**5.9**	**6220**	3	**199**	26400
L1-4	7/10/2019	ND (200)	1.2	258	ND (3.0)	34	ND (10000)
L1-4	10/23/2019	<200	1.3	<100	<3.0	<15	<10000
L1-4	1/21/2020	<200	1.1	254	<3.0	<15	<10000
L1-4	4/15/2020	<200	1	**304**	<3.0	31.2	<10000
L1-4	7/15/2020	<200	2	**586**	<3.0	37.1	<10000
L1-4	10/7/2020	<200	<3.0	230	<3.0	36	<10000
L1-4	1/28/2021	NA	<3.0	**407**	<3.0	40	<10000
L1-4	4/13/2021	NA	<3.0	229	<3.0	28	<10000

ND – Non-Detect, NA – Not Analyzed, J- Estimated Concentration

General Chemistry Parameters

Targeted general chemistry parameters (cyanide, ammonia, and phenols) were not detected in the groundwater samples at concentrations above the GWQS in all No. 1 Landfarm monitoring wells for the last eight (8) rounds of groundwater sampling.

Summary of 2021 Annual Groundwater Sampling Analytical Results – SP-1, SP-2, SP-3

In December 2020, groundwater samples were collected from monitoring wells SP-1 through SP-3, and analyzed for VOCs, SVOCs, metals, and general chemistry parameters. Analytical results from the December 2020 AOC 1 – No. 1 Landfarm groundwater sampling event are summarized in **Table 2** and on **Figure 5.4**.

No targeted VOCs or SVOCs were detected above the GWQS in the groundwater samples collected from the monitoring wells. Analytical results from the sampling event identified the presence of several metals exceeding their respective GWQS. The following table summarizes the analytical results.

Client Sample ID:		NJ Groundwater Criteria (NJAC 7:9C 9/4/18)	SP-1	SP-2	SP-3
Lab Sample ID:			JD17665-1	JD17665-2	JD17516-4
Date Sampled:			12/11/2020	12/11/2020	12/9/2020
Matrix:			Ground Water	Ground Water	Ground Water
Metals Analysis					
Aluminum	ug/l	200	**2650**	**2250**	ND
Arsenic	ug/l	3	2.4	**3.5**	**11.3**
Iron	ug/l	300	**4140**	**5950**	**37400**
Lead	ug/l	5	**7.8**	**5.8**	ND
Manganese	ug/l	50	32.1	19.9	**430**
- ND - Non-Detect, J - Estimated Concentration					
- Blue shading indicates exceedance of GWQS					

4.1.3 Leachate Analytical Results (2020/2021)

Leachate samples are collected tri-annually. The leachate sample is a pre-treatment sample and is analyzed for VOCs, SVOCs, metals, ammonia, and general chemistry.

The following is a summary of the 2020/2021 leachate sampling dates and results:

- January 2020
  - No targeted VOCs or SVOCs
  - Metals
    - Arsenic – 3.9 parts per billion (ppb) (GWQS 3 ppb)
    - Nickel – 208 ppb (GWQS 100 ppb)
- June 2020
  - No targeted VOCs or SVOCs

    - Metals
        - Arsenic – 11 ppb (GWQS 3 ppb)
        - Nickel – 127 ppb (GWQS 100 ppb)
- January 2021
    - No targeted VOCs or SVOCs
    - Metals
        - Nickel - 252 ppb (GWQS 100 ppb)

5.0 INVESTIGATION SUMMARY & RECOMMENDATIONS

Based on the request from the NJDEP and a review of analytical results, the following section summarizes Hess/Earth Systems' recommendations for a revised groundwater sampling plan for AOC 3 – No. 1 Landfarm. The revised groundwater sampling plan will be implemented prior to closure of the landfarm, as well as being utilized post closure, if applicable.

Earth Systems/Hess recommends that the following revisions to the groundwater sampling plan be conducted for the next four (4) rounds of quarterly groundwater sampling. After four (4) rounds, the analytical results can be evaluated with the current closure status of the landfarm to determine if any additional modifications to the sampling plan are warranted.

<u>No. 1 Landfarm</u>

A RAW, which included recommendations for post-closure groundwater monitoring, was submitted in 2016. The 100% Soil RAD for the landfarm engineering control was originally submitted in May 2019. Based on October 2019 NJDEP/USEPA comments, a revised 100% Soil RAD for was submitted on December 17, 2019. The NJDEP/USEPA issued an approval letter for the 100% design on April 28, 2020. All permits have been approved by the NJDEP and other applicable agencies. Closure activities, as specified in the approved RAD, are currently being coordinated.

As explained in **Section 1.0**, the NJDEP requested that the current groundwater sampling plans be revised prior to closure of the landfarms. Therefore, a review of the No. 1 Landfarm analytical results was conducted, and Earth Systems/Hess recommends the following:

- No additional wells are recommended to be installed as part of the groundwater investigation of the No. 1 Landfarm (there are currently sufficient monitoring wells installed in the area)
- Include Monitoring wells SP-1, SP-2, and SP-3 in quarterly groundwater sampling activities (currently these wells are only gauged as part of quarterly North Landfarm gauging activities)
- Modify groundwater sampling parameters to the following:
    - TCL VOCs + TICs (for monitoring wells SP-1, SP-2, and SP-3 only for a minimum of 4 quarters)
        - If VOC results are below applicable GWQS after four (4) quarterly rounds of samples for SP wells – a modification of sampling parameters will be requested
        - VOC analytical results are below applicable GWQS for the last eight (8) rounds of sampling for wells L1-1 through L1-4, BG-2, and BG-3
    - TCL SVOCs + TICs (Method SW846) for all wells sampled
    - TAL Metals for all wells sampled
    - Ammonia for all wells samples

5.1 Contingency Investigations

As described above, based on existing data, the groundwater sampling plan for the No. 1 Landfarm is being revised. Data derived from the new groundwater samples may indicate that additional sampling is still necessary. If additional sampling is warranted, the LSRP of record will make a determination (based on existing data) of where additional sampling points are needed and determine what analytical data is necessary to complete delineation pursuant to NJDEP technical regulations. Implementation of the new scope will move forward immediately without the submittal of additional workplans.

5.2 Quality Assurance Project Plan

Samples will be collected in accordance with the sampling procedures outlined in the Quality Assurance Project Plan (QAPP), which is included as **Appendix B**.

Groundwater samples will be collected via low-flow sampling methodology in accordance with the NJDEP's *FSPM*. Earth Systems is certified by the NJDEP Office of Quality Assurance (OQA) for analysis of "analyze immediately" parameters (NJ Lab ID No. 13040).

Groundwater samples will be collected in laboratory supplied glassware and transferred to SGS-Accutest Laboratories (SGS) of Dayton, New Jersey (NJ NELAP Certification No. 12129) under strict chain of custody procedures.

Prior to groundwater purging, the pump intake depth placement will be determined by water level, screen depth, and contaminants of concern. The depth of the pump will be recorded on the low-flow field worksheets. Groundwater purging will be conducted at each well utilizing a Monsoon submersible pump with Teflon-lined ¼ inch polyethylene tubing. Groundwater field parameters will be collected using a Horiba U-52 water quality meter and flow cell. The Horiba U-52 will be calibrated by both the rental company as well as by field personnel. The Horiba will be calibrated in accordance with the manufacturer's instructions and in accordance with Earth Systems' Standard Operating Procedures. The field parameters that will be monitored include: temperature, conductivity, dissolved oxygen, turbidity, redox potential, and pH. Groundwater elevation measurements will be collected utilizing a Solinist oil/water interface probe. Groundwater elevations will be recorded prior to pump placement and continuously during well purging. The total depth of the well will be measured either 48 hours prior to well sampling or at the conclusion of well sampling (and noted in the well sampling field sheets). During well purging, the monitored parameters will be measured every 5 minutes until three consecutive stable readings are recorded. In accordance with the FSPM Section 6.9.2.2.5.2, the following values are utilized to determine stability for the monitored parameters:

- pH +/- 0.1 unit
- Specific Conductance +/- 3%
- Temperature +/- 3%
- Dissolved Oxygen +/- 10%
- Turbidity +/- 10% for values greater than 1 NTU

- ORP +/- 10 millivolts
- Water level drawdown <0.3 feet

The parameter readings and the water level drawdown will be recorded on the low-flow field worksheets. Any variances will also be recorded on the low-flow stabilization sheets.

Prior to and at the completion of groundwater sampling of each monitoring well, the Horiba U-52 water quality meter, flow cell, and submersible pump will be properly decontaminated using Alconox and a distilled or deionized water rinse. Tubing will be discarded after sampling of each well and will not be reused.

The QAPP will provide guidance to the project team to ensure all field activities are completed in a manner consistent with the NJDEP and USEPA requirements and that all data produced is of sufficient quality to meet required standards. Analytical data packages will be presented in the New Jersey Reduced Deliverables format, including electronic data deliverables (EDDs).

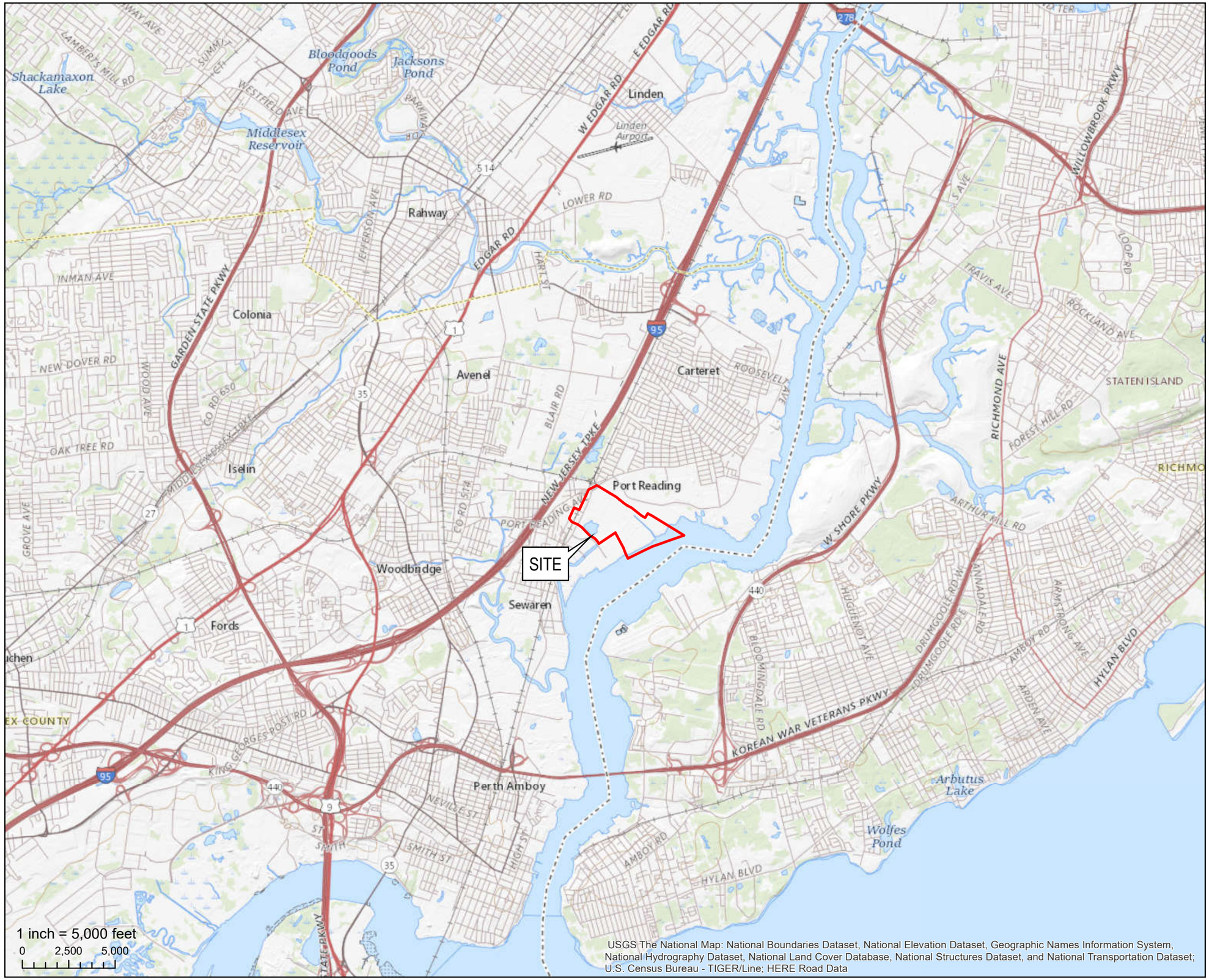
5.3 Health and Safety Plan

A Site-specific HASP has been prepared in accordance with NJAC 7:26E-1.9. All Site personnel will be informed prior to performing any site activities of all health and safety protocols.

6.0 SCHEDULE

Hess is prepared to immediately implement the recommendations in this groundwater sampling plan, pending approval by the NJDEP and USEPA. Analytical results will continue to be summarized in the Semi-Annual Report, pending closure of the No. 1 Landfarm.

FIGURES



N

LEGEND

Port Reading Site Boundary

NEW JERSEY QUADRANGLE LOCATION:
53 - JERSEY CITY, NEW JERSEY

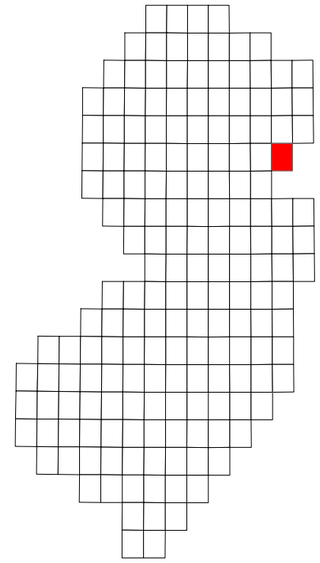


FIGURE 1:
USGS SITE LOCATION MAP

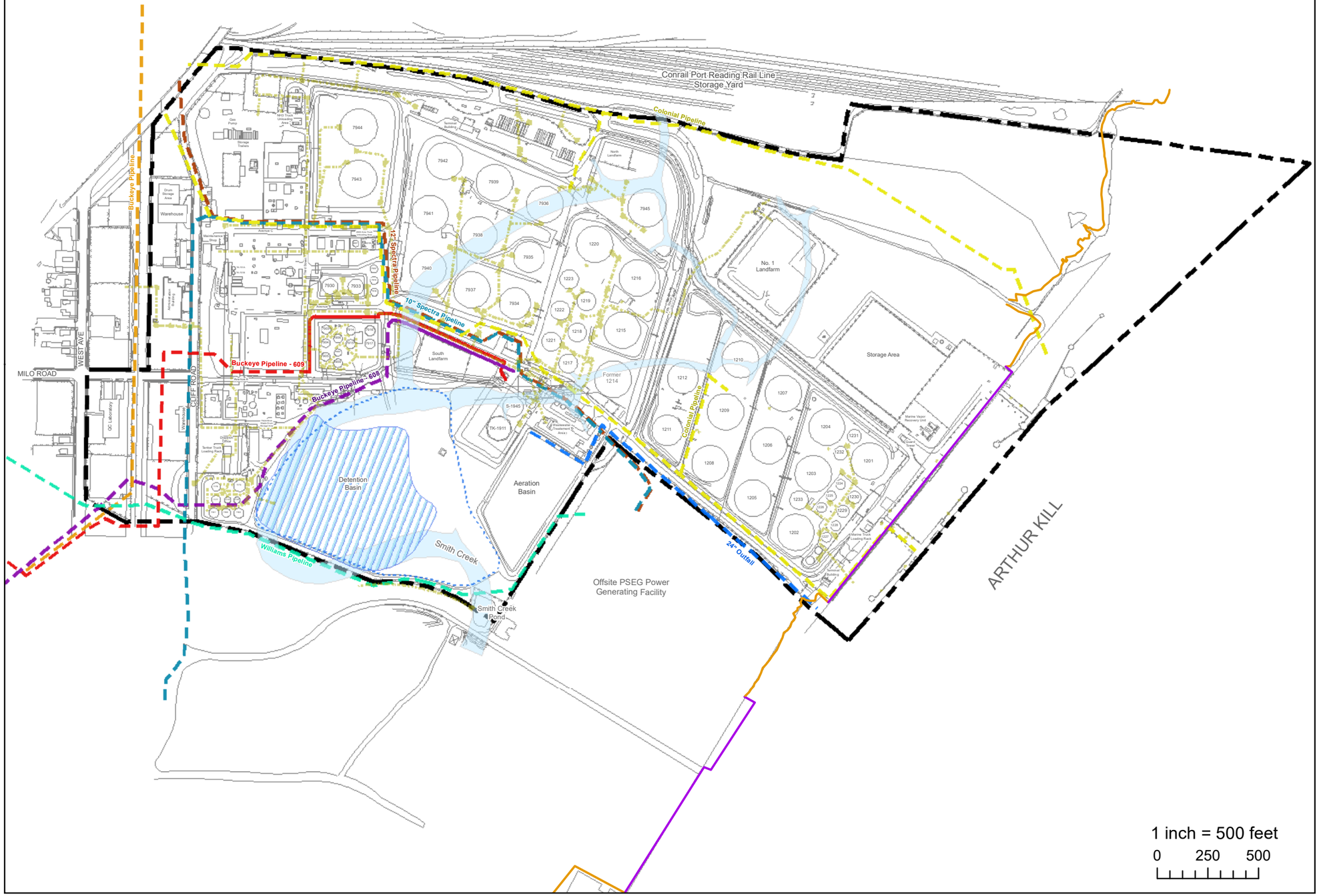
HESS CORPORATION
FORMER PORT READING TERMINAL
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/16/2020
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized. Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - USGS Site Location Figure.mxd



LEGEND

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline
- Bulkhead

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Williams Pipeline
- Sitewide Utilities/Wastewater

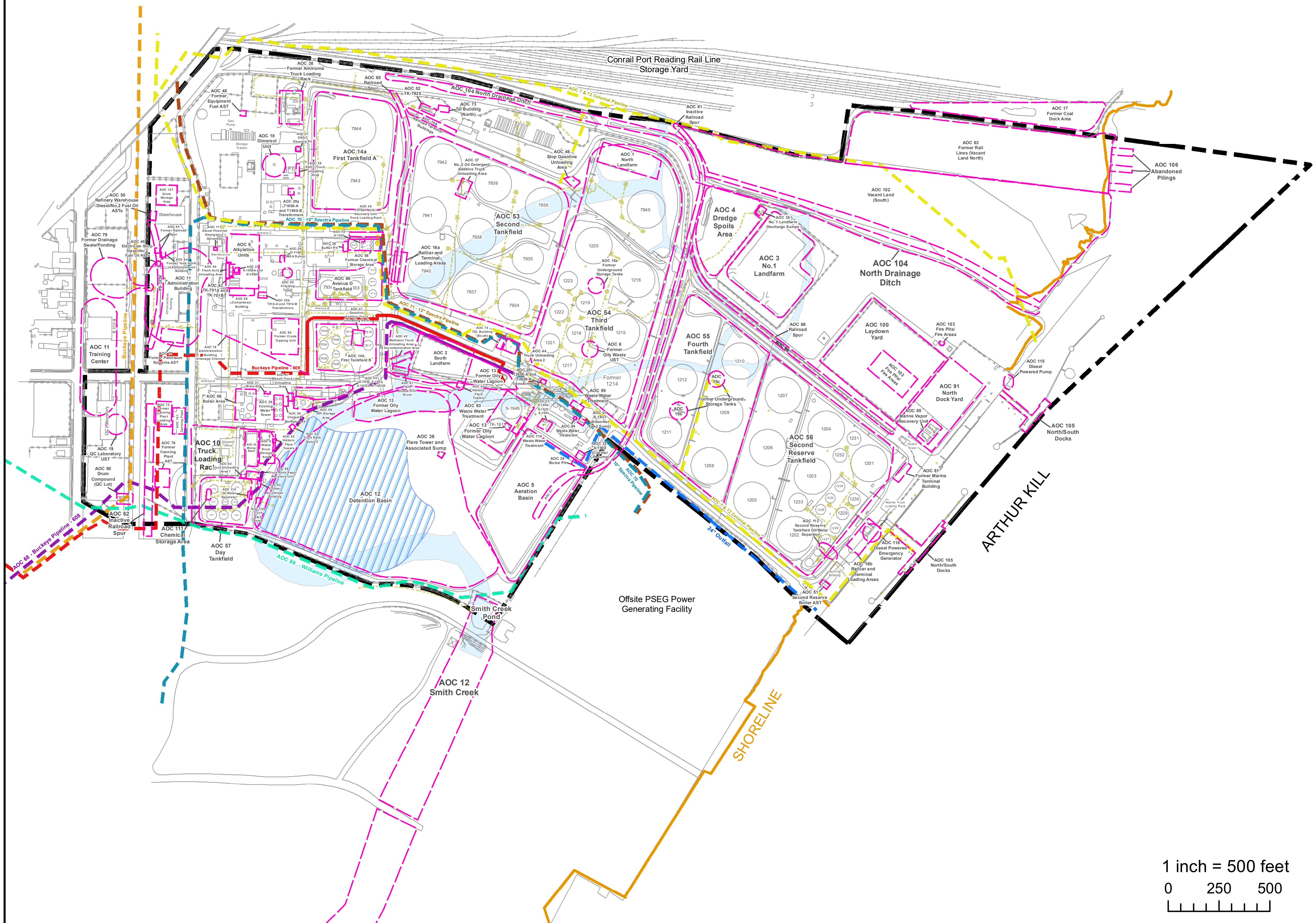
Utility and Pipe Line Note:
- Solid Line: Above-ground
- Dotted Line: Underground

FIGURE: 2
Site Plan

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	03/25/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- AOC Boundary
- Sitewide Utilities
- Shoreline
- Site Boundary
- Detention Basin Current Extents
- Former Smith Creek Channel

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

FIGURE: 3
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/24/2021
SRP PI#:	006148	**Drawn By:**	KJ/RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized.
Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

AOC 38 Former Ammonia Truck Loading Rack
AOC 65 Railroad Spur
AOC 52 TK-7925
AOC 104 North Drainage Ditch
AOC 48 Former Equipment Fuel AST
AOC 73 Tel Building (North)
AOC 108 Railroad Terminal Buildings
Gas Pump
Storage Trailers
AOC 18 Dimersol Unit
AOC 27 EADC Disposal Pit
7944
AOC 14a First Tankfield A
AOC 39 EADC Truck Unloading Area
7943
7942
AOC 37 No. 2 Oil Detergent/ Additive Truck Unloading Area
AOC 46 Slop Gasoline Unloading Area
Fourth Street
7939
AOC 107 Drum Storage Area
AOC 50 Refinery Warehouse Diesel/No,2 Fuel Oil ASTs
Warehouse
AOC 20a T1600-A and T1600-B Transformers
AOC 45 Former Sulfur Recovery Unit Truck Loading Rack
AOC 70 - 10" Spectra Pipeline
7941
7936
AOC 53 Second Tankfield
AOC 64 Former Railroad Spur
AOC 117 Diesel Powered Emergency Generator
Avenue C
AOC 32 X-1951
AOC 79 Former Drainage Swale/Ponding
AOC 49 Electrician Shop Diesel/No.2 Fuel Oil ASTs
AOC 9 Alkylation Units
AOC 30 Sulfur Pit
7938
1220
AOC 84 Former Tank North of Administration Building
Maintenance Shop
AOC 40 Fresh Acid Unloading Area
AOC 25 X-1950A and X-1950B
AOC 26 D-1104 (MEA Sump)
Third Street
AOC 58 Former Chemical Storage Area
AOC 16a Railcar and Terminal Loading Areas
7940
7935
AOC 64
AOC 11 Administration Building
AOC 60 Avenue D Tankfield
7920
7919
7918
AOC 89 Cracking Tower
AOC 92 TK-701A and TK-701B
1223
7937
AOC 88 Compressor Building
AOC 20b T510-A and T510-B Transformers
7934
1222
AOC 54 Third Tankfield
Avenue B
AOC 41 Gasoline Additive Truck Unloading Rack
Administration Building
Buckeye Pipeline
AOC 80 Former Crude Topping Unit
AOC 74 TEL Building (South)
1218
AOC 42 Methanol Truck Unloading Area/ Decontamination Area
AOC 71 - 12" Spectra Pipeline
1221
AOC 11 Training Center
AOC 78 Administration Building Drainage Channel
AOC 77 Former Petroleum Solvents AST
AOC 2 South Landfarm
AOC 13 Former Oily Water Lagoon
AOC 44 Truck Unloading Area 2
1217
Buckeye Pipeline - 609
AOC 47 Bleach Truck Unloading Area
AOC 34 X-1930, X-1932, X-1922A, X-1922B
AOC 87 Flare Knock-Out Drum
AOC 20c T2606-A and T2606-B Transformers
AOC 95 Waste Water Treatment
Avenue A
AOC 31 Brine Pit
AOC 96 Boiler Area
AOC 28 Cooling Water Tower
AOC 59 API Storage Area
AOC 99 Chemical Storage Area
AOC 13 Former Oily Water Lagoon
AOC 83 Historic Flare Towers
AOC 93 Waste Water Treatment
S-1945
AOC 23 X-1904, S-1922, X-1903
AOC 75 Former Canning Plant Loading Area
AOC 101 Canning Plant
QC Laboratory
AOC 19 QC Laboratory UST
AOC 76 Former Canning Plant AST
AOC 10 Truck Loading Rack
Dispatch Office
AOC 29 Mixing Basin
AOC 8 Waste Drum Storage Area
AOC 83 Historic Flare Towers
AOC 33 Truck Rack Sump 2
TK-1911
AOC 13 Former Oily Water Lagoon
AOC 94 Waste Water Treatment
AOC 114 Waste Water Treatment
AOC 36 Flare Tower and Associated Sump
AOC 43 Truck Unloading
AOC 24
1 inch = 204 feet
0 100 200

LEGEND

- AOC Boundary
- Sitewide Utilities
- Underground Utility Lines
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

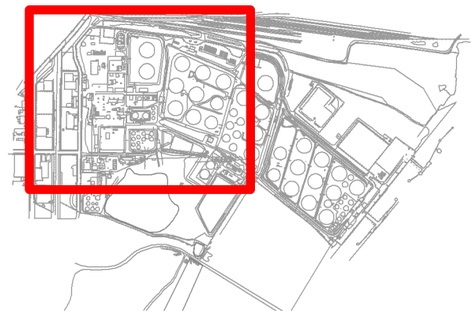

FIGURE: 3.1
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

AOC 7 & 72 Colonial Pipeline
AOC 61 Inactive Railroad Spur
AOC 17 Former Coal Dock Area
AOC 63 Former Rail Lines (Vacant Land North)
AOC 1 North Landfarm
AOC 102 Vacant Land (South)
7945
AOC 35 No. 1 Landfarm Discharge Sumps
AOC 4 Dredge Spoils Area
1220
AOC 15a Former Underground Storage Tanks
AOC 3 No.1 Landfarm
AOC 104 North Drainage Ditch
1216
Fifth Street
12
AOC 54 Third Tankfield
1215
8
AOC 6 Former Oily Waste UST
AOC 55 Fourth Tankfield
AOC 66 Railroad Spur
AOC 66
AOC 100 Laydown Yard
AOC 103 Fire Pits/ Fire Areas
AOC 103 Fire Pits/ Fire Areas
1210
AOC 115 Diesel Powered Pump
Former 1214
AOC 95 Waste Water Treatment
1212
AOC 15c
Former Underground Storage Tanks
1207
AOC 91 North Dock Yard
AOC 15b
1209
AOC 85 Marine Vapor Recovery Unit
AOC 21 X-1933 (Adsorber Feed Sump)
1211
1204
AOC 105 North/South Docks
1231
AOC 56 Second Reserve Tankfield
1206
Guard Tower
1232
AOC 22 X-1908 (Clarifier Lift Sump)
1201
1208
AOC 81 Former Marine Terminal Building
1203
1224
10" Spectra Pipeline
AOC 70
AOC 7 & 72 Colonial Pipeline
24" Outfall
1205
1225
1230
1233
Marine Truck Loading Rack
1226
Arthur Kill

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

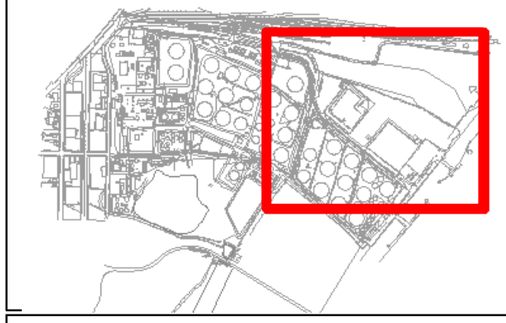

FIGURE: 3.2
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/26/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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AOC 3
No.1
Landfarm

AOC 104
North Drainage
Ditch

AOC 15a
Former
Underground
Storage Tanks

Fifth Street

AOC 54
Third
Tankfield

AOC 55
Fourth
Tankfield

AOC 66
Railroad
Spur

AOC 100
Laydown
Yard

AOC 103
Fire Pits/
Fire Areas

AOC 91
North
Dock Yard

AOC 74
TEL Building
(South)

AOC 71 - 12" Spectra Pipeline

AOC 2
South
Landfarm

AOC 13
Former Oily
Water Lagoon

AOC 44
Truck Unloading
Area 2

AOC 6
Former
Oily Waste
UST

AOC 20c
T2606-A and
T2606-B
Transformers

AOC 83
Historic
Flare
Towers

AOC 95
Waste Water
Treatment

AOC
15c

Former Underground
Storage Tanks

AOC
15b

AOC 93
Waste Water
Treatment

AOC 23
X-1904,
S-1922,
X-1903

AOC 21
X-1933
(Adsorber
Feed Sump)

AOC 94
Waste Water
Treatment

AOC 114
Waste Water
Treatment

AOC 22
X-1908
(Clarifier
Lift Sump)

AOC 24
Sluice Pit

AOC 56
Second
Reserve
Tankfield

AOC 85
Marine Vapor
Recovery Unit

Guard
Tower

AOC 81
Former Marine
Terminal
Building

10" Spectra Pipeline

AOC 70

24" Outfall

AOC 7 & 72 Colonial Pipeline

AOC 5
Aeration
Basin

AOC 61

AOC 113
Second Reserve
Tankfield Oil/Water
Separator

Marine Truck
Loading Rack

AOC 116
Diesel Powered
Emergency
Generator

AOC 16b
Railcar and
Terminal
Loading Areas

Terminal
Building

AOC 105
North/South
Docks

Off site PSEG Power
Generating Facility

AOC 51
Second Reserve
Boiler AST

Shore Line

Arthur Kill

Smith Creek
Pond

AOC 12
Smith Creek

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

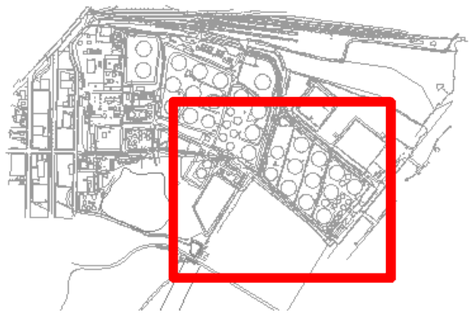

FIGURE: 3.3
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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AOC 50 Refinery Warehouse Diesel/No.2 Fuel Oil ASTs
Drum Storage Area
Warehouse
AOC 64 Former Railroad Spur
AOC 79 Former Drainage Swale/Ponding
AOC 49 Electrician Shop Diesel/No.2 Fuel Oil ASTs
AOC 84 Former Tank North of Administration Building
AOC 64
AOC 11 Administration Building
Administration Building
AOC 11 Training Center
Buckeye Pipeline
AOC 77 Former Petroleum Solvents AST
MILOS WAY
WEST AVENUE
QC Laboratory
AOC 75 Former Canning Plant Loading Area
AOC 101 Canning Plant
AOC 76 Former Canning Plant AST
AOC 19 QC Laboratory UST
AOC 90 Drum Compound (QC Lot)
AOC 62 Inactive Railroad Spur
AOC 111 Chemical Storage Area
AOC 68 - Buckeye Pipeline - 608
AOC 57 Day Tankfield
AOC 69 - Williams Pipeline
AOC 20a T1600-A and T1600-B Transformers
AOC 70 - 10" Spectra Pipeline
AOC 117 Diesel Powered Emergency Generator
Avenue C
AOC 9 Alkylation Units
Maintenance Shop
AOC 40 Fresh Acid Unloading Area
AOC 25 X-1950A and X-1950B
AOC 26 D-1104 (MEA Sump)
Third Street
AOC 88 Compressor Building
AOC 89 Cracking Tower
AOC 20b T510-A and T510-B Transformers
Avenue B
AOC 80 Former Crude Topping Unit
AOC 78 Administration Building Drainage Channel
Buckeye Pipeline - 609
Avenue A
AOC 31 Brine Pit
AOC 47 Bleach Truck Unloading Area
AOC 96 Boiler Area
AOC 28 Cooling Water Tower
AOC 99 Chemical Storage Area
AOC 59 API Storage Area
AOC 10 Truck Loading Rack
Dispatch Office
AOC 29 Mixing Basin
AOC 8 Waste Drum Storage Area
AOC 83 Historic Flare Towers
AOC 43 Truck Unloading Area 1
AOC 110 Oil Water Separator
AOC 86 Truck Rack Vapor Recovery Unit
AOC 82 Former Incinerator Building
AOC 109 Truck Rack Sump
AOC 45 Former Sulfur Recovery Unit Truck Loading Rack
AOC 32 X-1951
AOC 30 Sulfur Pit
AOC 58 Former Chemical Storage Area
AOC 60 Avenue D Tankfield
AOC 41 Gasoline Additive Truck Unloading Rack
AOC 14b First Tankfield B
AOC 34 X-1930, X-1932, X-1922A, X-1922B
AOC 87 Flare Knock-Out Drum
AOC 33 Truck Rack Sump 2
AOC 36 Flare Tower and Associated Sump
AOC 12 Detention Basin
AOC 16a Railcar and Terminal Loading Areas
AOC 53 Second Tankfield
AOC 42 Methanol Truck Unloading Area/ Decontamination Area
AOC 74 TEL Building (South)
AOC 71 - 12" Spectra Pipeline
AOC 2 South Landfarm
AOC 13 Former Oily Water Lagoon
AOC 44 Truck Unloading Area 2
AOC 20c T2606-A and T2606-B Transformers
AOC 83 Historic Flare Towers
AOC 93 Waste Water Treatment
AOC 13 Former Oily Water Lagoon
TK-1911
S-1945
AOC 114 Waste Water Treatment
AOC 5 Aeration Basin
Smith Creek Pond
7941
7938
7935
7940
7937
7934
7933
7903
7914
7916
7906
7904
7915
7917
7908
7905
7909
7920
7919
7918
7910
7911
2615
2607
2614
2616
2612
1176
1175
1177
1179
1178
1181
1180
1182

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

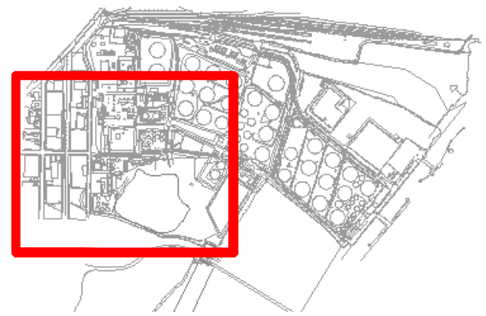

FIGURE: 3.4
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
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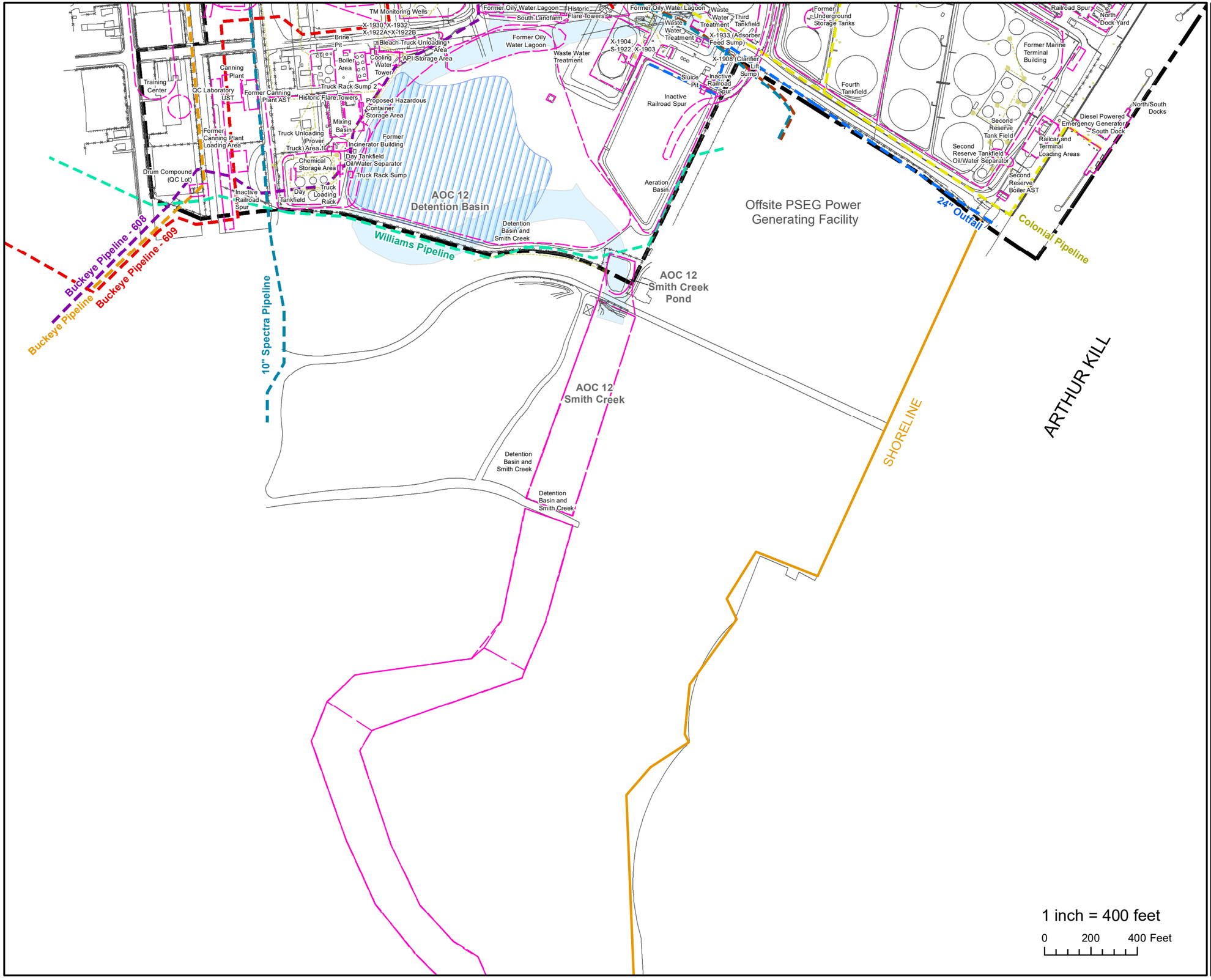

LEGEND

- AOC Boundary
- Sitewide Utility/Wastewater System
- Shoreline
- Site Boundary
- Detention Basin Current Extents

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line - Aboveground
Dotted Line - Underground

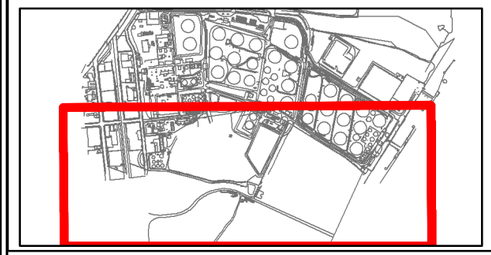

FIGURE: 3.5
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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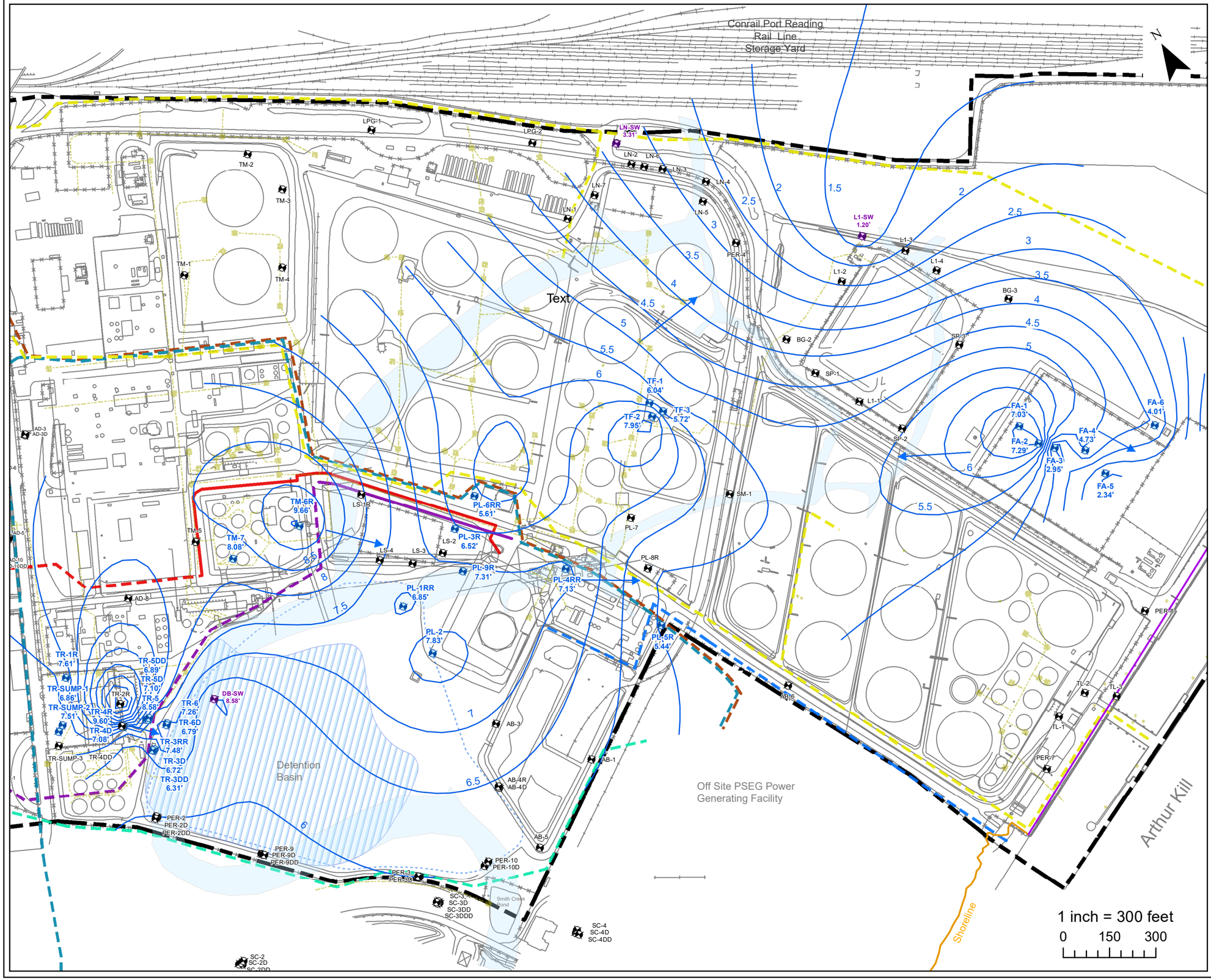

LEGEND

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Gauged Monitoring Well
- Monitoring Well
- Surface Water Gauge

FIGURE: 4

April 2021
MONTHLY GAUGING
GROUNDWATER ELEVATION CONTOUR

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/12/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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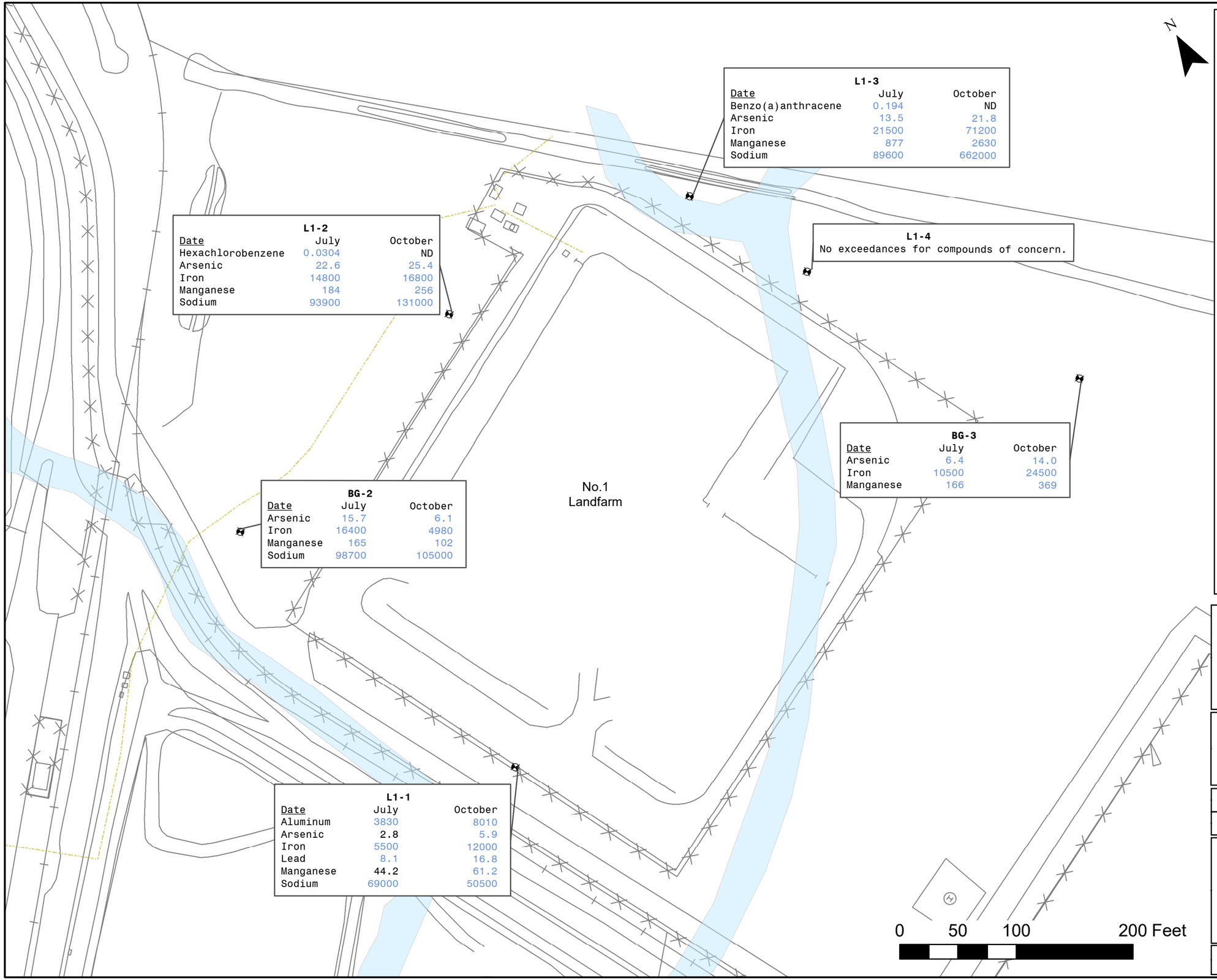
Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.



LEGEND

- Monitoring Well
- Former Smith Creek Channel
- Sitewide Utilities

NJ Groundwater Criteria	
Benzo(a)anthracene	0.1
Hexachlorobenzene	0.02
Aluminum	200
Arsenic	3
Iron	300
Lead	5
Manganese	50
Sodium	50000

NOTE:

1. Results Measured in ug/l
2. Pipelines:
   Solid Line: Aboveground
   Dashed Line: Underground
3. BLUE; Exceedance, Result > Criteria
4. ND - Non Detect

FIGURE: 5.1
July and October 2019
No 1 Landfarm
Groundwater Exceedance Results

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	08/02/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
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N

L1-3

Date	January	April	July	October
Aluminum	ND	341	983	212
Arsenic	8.7	5.2	12.5	28.2
Iron	14100	30400	6650	24700
Manganese	525	795	204	596
Sodium	80200	114000	56600	118000

L1-3

L1-2

Date	January	April	July	October
Arsenic	15.9	19	27.3	29.3
Iron	17100	22400	23000	19400
Manganese	240	234	259	257
Sodium	111000	94500	163000	153000

L1-2

L1-4

L1-4

Date	January	April	July	October
Iron	254	304	586	230

BG-3

BG-3

Date	January	April	July	October
Benzo(a)anthracene	0.554	ND	ND	ND
Benzo(a)pyrene	0.233	ND	ND	ND
Benzo(b)fluoranthene	0.297	ND	ND	ND
1,4-Dioxane	0.755	ND	ND	ND
Arsenic	5.6	3.8	30.1	12.6
Iron	12100	8380	67000	16400
Manganese	251	120	425	285

BG-2

BG-2

Date	January	April	July	October
Aluminum	ND	483	ND	201
Arsenic	7.0	14.3	15	19.2
Iron	3410	5840	4450	4970
Manganese	57	30.6	43.9	49.2
Sodium	67600	19700	32300	49900

No.1
Landfarm

L1-1

L1-1

Date	January	April	July	October
Aluminum	346	385	1660	4270
Iron	469	440	1820	6770
Lead	3.0	3.0	3.5	10.7
Sodium	55300	53800	51100	44000

0 50 100 200 Feet

LEGEND

- Monitoring Well
- Former Smith Creek Channel
- Sitewide Utilities

NJ Groundwater Criteria	
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Benzo(b)fluoranthene	0.2
1,4-Dioxane	0.4
Aluminum	200
Arsenic	3
Iron	300
Manganese	50
Sodium	50000
pH	6.5-8.5

NOTE:
1. Results Measured in ug/l
2. Pipelines:
   Solid Line: Aboveground
   Dotted Line: Underground
3. BLUE; Exceedance,Result > Criteria
4. ND - Non Detect

FIGURE: 5.2
2020
No 1 Landfarm
Groundwater Results

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	08/02/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
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L1-3

Date	January	April
Arsenic	10	5.9
Iron	7970	6220
Manganese	222	199

L1-2

Date	January	April
Arsenic	18.2	15.9
Iron	14600	14100
Manganese	228	217
Sodium	114000	106000

L1-4

Date	January	April
Iron	407	229

BG-3

Date	January	April
Arsenic	5.6	ND
Iron	8530	6180
Manganese	91.1	198

BG-2

Date	January	April
Benzo(a)anthracene	0.168	0.166
Arsenic	11.7	7.6
Iron	8200	2510
Lead	11.6	3.3
Manganese	64.7	19.3
Sodium	235000	38200

No.1
Landfarm

L1-1

Date	January	April
Manganese	43.7	63.9
Sodium	141000	289000

N

0 50 100 200 Feet

LEGEND

- Monitoring Well
- Former Smith Creek Channel
- Sitewide Utilities

NJ Groundwater Criteria

Benzo(a)anthracene	0.1
Arsenic	3
Iron	300
Lead	5
Manganese	50
Sodium	50000

NOTE:
1. Results Measured in ug/l
2. Pipelines:
   Solid Line: Aboveground
   Dotted Line: Underground
3. BLUE; Exceedance, Result > Criteria
4. ND - Non Detect

FIGURE: 5.3
2021
No 1 Landfarm
Groundwater Results

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	08/02/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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LN-5

PER-4

L1-SW

L1-3

L1-4

L1-2

BG-3

BG-2

SP-3

Sampled	12/15/2020
Aluminum	ND
Arsenic	11.3
Iron	37400
Lead	ND
Manganese	430

SP-3

SP-1

Sampled	12/11/2020
Aluminum	2650
Arsenic	2.4
Iron	4140
Lead	7.8
Manganese	32.1

SP-1

L1-1

SP-2

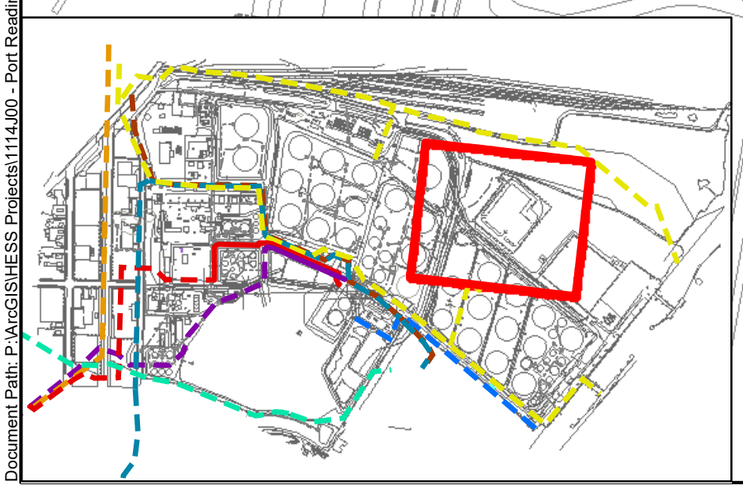
Sampled	12/11/2020
Aluminum	2250
Arsenic	3.5
Iron	5950
Lead	5.8
Manganese	19.9

SP-2

FA-1

FA-2

FA-3



1 inch = 100 feet

0 50 100 200 Feet

LEGEND

Monitoring Well

N

NJ Groundwater Criteria	
Aluminum	200
Arsenic	3
Iron	300
Lead	5
Manganese	50

NOTE:
1. All Results were measured in ug/l

FIGURE: 5.4
No 1 Landfarm
2020 Annual Groundwater Sampling Results

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	1/1/2020
SRP PI#:	006148	**Drawn By:**	KJ

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

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TABLES

Table 1
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
No. 1 Landfarm Soil Analytical Results (2017-2020)

Client Sample ID:		NJ Non-Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	NJ Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	ZOI (0.0-1.5')	TZ (1.5-3.0')	VZ (3.0-4.0')	ZOI(0.5-1.0')	TZ(1.5-3.0')	UZ(3.0-4.0')	ZOI (0.5-1.0')	TZ (1.5-3.0')	UZ (3.0-4.0')	ZOI (0.5-1.0)	TZ (1.5-3.0)	UZ (3.0-4.0)
Lab Sample ID:				JD12200-1	JD12200-2	JD12200-3	JC93098-1	JC93098-2	JC93098-3	JC72494-1	JC72494-2	JC72494-3	JC46933-1	JC46933-2	JC46933-3
Date Sampled:				8/25/2020	8/25/2020	8/25/2020	8/12/2019	8/12/2019	8/12/2019	8/23/2018	8/23/2018	8/23/2018	7/13/2017	7/13/2017	7/13/2017
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260C)															
Benzene	mg/kg	5	2	ND (0.00063)	ND (0.00074)	ND (0.027)	ND (0.00083)	0.0046	0.0027	ND (0.00060)	ND (0.00054)	0.0039	ND (0.00014)	ND (0.00011)	ND (0.00012)
2-Butanone (MEK)	mg/kg	44000	3100	ND (0.0052)	ND (0.0060)	ND (0.22)	ND (0.0068)	0.0176	0.0126	ND (0.0060)	ND (0.0053)	0.0086 J	ND (0.0071)	0.0060 J	ND (0.0060)
Carbon disulfide	mg/kg	110000	7800	ND (0.0013)	ND (0.0015)	ND (0.055)	ND (0.0017)	0.0016 J	0.0013 J	ND (0.0015)	ND (0.0013)	0.0012 J	ND (0.00082)	ND (0.00065)	ND (0.00070)
Chlorobenzene	mg/kg	7400	510	ND (0.00063)	ND (0.00074)	ND (0.027)	ND (0.00083)	ND (0.00055)	ND (0.00048)	ND (0.00057)	ND (0.00050)	ND (0.00039)	ND (0.00039)	ND (0.00031)	ND (0.00033)
Chloroform	mg/kg	2	0.6	ND (0.00067)	ND (0.00079)	ND (0.029)	ND (0.00089)	ND (0.00058)	ND (0.00051)	ND (0.00060)	ND (0.00053)	ND (0.00041)	ND (0.00044)	ND (0.00035)	ND (0.00037)
1,2-Dibromoethane	mg/kg	0.04	0.008	ND (0.00058)	ND (0.00068)	ND (0.025) [a]	ND (0.00076)	ND (0.00050)	ND (0.00044)	ND (0.00052)	ND (0.00046)	ND (0.00035)	ND (0.00033)	ND (0.00026)	ND (0.00028)
1,2-Dichloroethane	mg/kg	3	0.9	ND (0.00065)	ND (0.00076)	ND (0.028)	ND (0.00085)	ND (0.00056)	ND (0.00049)	ND (0.00075)	ND (0.00067)	ND (0.00051)	ND (0.00024)	ND (0.00019)	ND (0.00021)
1,4-Dioxane	mg/kg	-	-	ND (0.050) [b]	ND (0.059) [b]	ND (2.2)	ND (0.066)	ND (0.043)	ND (0.038)	ND (0.058)	ND (0.052)	ND (0.040)	ND (0.064)	ND (0.051)	ND (0.054)
Ethylbenzene	mg/kg	110000	7800	ND (0.00076)	ND (0.00089)	0.0633	ND (0.0010)	0.0114	0.0019	ND (0.00088)	ND (0.00078)	0.0074	ND (0.00039)	ND (0.00031)	ND (0.00033)
Methyl Tert Butyl Ether	mg/kg	320	110	ND (0.00065)	ND (0.00076)	ND (0.028)	ND (0.00085)	0.00094 J	0.00062 J	ND (0.00056)	ND (0.00050)	0.0010 J	ND (0.00058)	ND (0.00046)	ND (0.00049)
Styrene	mg/kg	260	90	ND (0.00079)	ND (0.00093)	ND (0.034)	ND (0.0010)	ND (0.00069)	ND (0.00060)	ND (0.00092)	ND (0.00082)	ND (0.00063)	ND (0.00067)	ND (0.00053)	ND (0.00057)
Tert Butyl Alcohol	mg/kg	11000	1400	ND (0.0063)	ND (0.0074)	ND (0.27) [b]	ND (0.0083)	0.0088 J	0.0050 J	ND (0.0053)	ND (0.0047)	0.0072 J	ND (0.0078)	ND (0.0062)	ND (0.0067)
Toluene	mg/kg	91000	6300	ND (0.00072)	ND (0.00085)	ND (0.031)	ND (0.00095)	0.0037	0.00095 J	ND (0.00060)	ND (0.00053)	0.0028	ND (0.00074)	ND (0.00059)	ND (0.00063)
Vinyl chloride	mg/kg	2	0.7	ND (0.00066)	ND (0.00078)	ND (0.029)	ND (0.00087)	ND (0.00057)	ND (0.00050)	ND (0.00075)	ND (0.00067)	ND (0.00051)	ND (0.0010)	ND (0.00082)	ND (0.00088)
Xylene (total)	mg/kg	170000	12000	ND (0.00080)	ND (0.00094)	0.205	ND (0.0011)	0.0164	0.0034	ND (0.00093)	ND (0.00083)	0.007	ND (0.00034)	ND (0.00027)	ND (0.00029)
MS Semi-volatiles (SW846 8270D)															
Benzenethiol	mg/kg	-	-	ND (0.44) [c]	1.11 J [c]	0.451 J [c]	0.935 J [a]	0.257 J [a]	ND (0.083) [a]	0.939 J [a]	ND (1.7) [a]	ND (0.88) [a]	0.935 [a]	0.0949 J [a]	0.205 J [a]
2,4-Dimethylphenol	mg/kg	14000	1200	ND (0.38)	ND (0.41)	ND (0.34)	ND (0.18)	ND (0.15)	ND (0.071)	ND (0.77)	ND (1.5)	ND (0.76)	ND (0.072)	ND (0.067)	ND (0.068)
2,4-Dinitrophenol	mg/kg	1400	120	ND (0.80)	ND (0.86)	ND (0.73)	ND (0.38)	ND (0.32)	ND (0.15)	ND (1.6)	ND (3.1)	ND (1.6)	ND (0.15)	ND (0.14)	ND (0.14)
2-Methylphenol	mg/kg	3400	310	ND (0.14)	ND (0.15)	ND (0.12)	ND (0.065)	ND (0.054)	ND (0.026)	ND (0.28)	ND (0.53)	ND (0.27)	ND (0.026)	ND (0.024)	ND (0.025)
3&4-Methylphenol	mg/kg	-	-	ND (0.17)	ND (0.19)	ND (0.16)	ND (0.084)	ND (0.070)	ND (0.033)	ND (0.35)	ND (0.69)	ND (0.35)	0.122	ND (0.031)	ND (0.032)
4-Nitrophenol	mg/kg	-	-	ND (0.57)	ND (0.61)	ND (0.52)	ND (0.27)	ND (0.23)	ND (0.11)	ND (1.2)	ND (2.2)	ND (1.1)	ND (0.11)	ND (0.10)	ND (0.10)
Phenol	mg/kg	210000	18000	ND (0.11)	ND (0.12)	ND (0.10)	ND (0.053)	ND (0.044)	ND (0.021)	ND (0.22)	ND (0.44)	ND (0.22)	ND (0.021)	ND (0.020)	ND (0.020)
Anthracene	mg/kg	30000	17000	0.196 J	0.45	3.27	0.439	0.963	0.219	0.494	ND (0.51)	3.18	0.408	0.0811	0.718
Benzo(a)anthracene	mg/kg	17	5	0.119 J	0.281	3.05	0.258	1.36	0.355	0.386 J	0.587 J	3.65	0.29	0.0617	0.121
Benzo(a)pyrene	mg/kg	2	0.5	0.171 J	0.451	**2.51**	0.414	**1.22**	0.279	0.478	**0.595 J**	**2.85**	**0.76**	0.132	0.155
Benzo(b)fluoranthene	mg/kg	17	5	0.107 J	0.211 J	1.62	0.329	0.791	0.205	0.288 J	0.465 J	1.72	0.352	0.0652	0.0885
Benzo(k)fluoranthene	mg/kg	170	45	ND (0.099)	ND (0.11)	0.285	0.0672 J	0.162	0.0417	ND (0.20)	ND (0.39)	0.434	0.0782	ND (0.018)	0.0221 J
Butyl benzyl phthalate	mg/kg	14000	1200	ND (0.052)	ND (0.056)	ND (0.047)	ND (0.025)	ND (0.021)	ND (0.0098)	ND (0.11)	ND (0.20)	ND (0.10)	ND (0.0099)	ND (0.0092)	ND (0.0094)
Chrysene	mg/kg	1700	450	0.27	0.662	7.45	0.491	2.95	0.666	0.8	0.89	7.88	1.32	0.124	0.346
1,2-Dichlorobenzene	mg/kg	59000	5300	ND (0.061)	ND (0.066)	ND (0.056)	ND (0.029)	ND (0.025)	ND (0.012)	ND (0.12)	ND (0.24)	ND (0.12)	ND (0.012)	ND (0.011)	ND (0.011)
1,3-Dichlorobenzene	mg/kg	59000	5300	ND (0.045)	ND (0.049)	ND (0.041)	ND (0.022)	ND (0.018)	ND (0.0085)	ND (0.092)	ND (0.18)	ND (0.090)	ND (0.0086)	ND (0.0080)	ND (0.0082)
1,4-Dichlorobenzene	mg/kg	13	5	ND (0.052)	ND (0.055)	ND (0.047)	ND (0.025)	ND (0.021)	ND (0.0097)	ND (0.10)	ND (0.20)	ND (0.10)	ND (0.0098)	ND (0.0092)	ND (0.0093)
7,12-Dimethylbenz(a)anthracene	mg/kg	-	-	ND (0.054)	ND (0.058)	ND (0.050)	ND (0.026)	ND (0.022)	ND (0.010)	ND (0.11)	ND (0.21)	ND (0.11)	ND (0.010)	ND (0.0097)	ND (0.0098)
Dibenz(a,h)acridine	mg/kg	-	-	ND (1.1) [d]	ND (1.1) [d]	ND (0.97) [d]	ND (0.51) [b]	ND (0.42) [b]	ND (0.20) [b]	ND (2.2) [b]	ND (4.2)	ND (2.1) [b]	ND (0.20)	ND (0.19)	ND (0.19)
Dibenzo(a,h)anthracene	mg/kg	2	0.5	ND (0.094)	0.254	**0.733**	0.296	0.401	0.094	ND (0.19)	0.416 J	**0.591**	0.375	0.0501	0.0574
Di-n-butyl phthalate	mg/kg	68000	6100	ND (0.035)	ND (0.037)	ND (0.032)	ND (0.017)	ND (0.014)	ND (0.0065)	ND (0.070)	ND (0.14)	ND (0.069)	ND (0.0066)	ND (0.0062)	ND (0.0063)
Di-n-octyl phthalate	mg/kg	27000	2400	ND (0.053)	ND (0.057)	ND (0.048)	ND (0.025)	ND (0.021)	ND (0.010)	ND (0.11)	ND (0.21)	ND (0.11)	ND (0.010)	ND (0.0094)	ND (0.0096)
Diethyl phthalate	mg/kg	550000	49000	ND (0.045)	ND (0.049)	ND (0.041)	ND (0.022)	ND (0.018)	ND (0.0085)	ND (0.092)	ND (0.18)	ND (0.090)	ND (0.0086)	ND (0.0080)	ND (0.0082)
Dimethyl phthalate	mg/kg	-	-	ND (0.038)	ND (0.041)	ND (0.034)	ND (0.018)	ND (0.015)	ND (0.0071)	ND (0.077)	ND (0.15)	ND (0.076)	ND (0.0072)	ND (0.0067)	ND (0.0068)
bis(2-Ethylhexyl)phthalate	mg/kg	140	35	0.260 J	0.291 J	0.63	ND (0.024)	0.413	0.0964	ND (0.10)	ND (0.20)	0.959	0.183	ND (0.0088)	0.113
Fluoranthene	mg/kg	24000	2300	ND (0.095)	ND (0.10)	1.78	0.239	0.733	0.214	ND (0.19)	ND (0.37)	2.47	0.175	0.0405	0.223
Indene	mg/kg	-	-	ND (0.047)	0.144 J	0.380 J	0.143 J	0.173 J	0.0292 J	0.255 J	ND (0.18)	0.391 J	0.0880 J	0.0290 J	0.0310 J
1-Methylnaphthalene	mg/kg	-	-	0.547	0.982	9.91	0.492	3.1	0.619	1.06	0.713 J	12.7	0.763	0.128	1.68
6-Methyl Chrysene	mg/kg	-	-	ND (1.1)	ND (1.1)	ND (0.97)	ND (0.51)	3.14	0.314	ND (2.2)	ND (4.2)	2.53	0.316	0.0492 J	0.0791 J
Naphthalene	mg/kg	17	6	0.311	0.574	1.19	0.295	0.498	0.0674	0.626	0.522 J	1.2	0.446	0.0793	0.153
Phenanthrene	mg/kg	300000	NA	0.566	1.12	15.9	0.701	4.97	1.35	1.29	1.01	22	0.966	0.209	3.68
Pyrene	mg/kg	18000	1700	0.221	0.482	8.02	0.434	3.06	0.833	0.578	0.638 J	9.87	0.617	0.102	0.78
Pyridine	mg/kg	-	-	ND (0.073)	ND (0.078)	ND (0.066)	ND (0.035)	ND (0.029)	ND (0.014)	ND (0.15)	ND (0.29)	ND (0.15)	ND (0.014)	ND (0.013)	ND (0.013)
Quinoline	mg/kg	-	-	ND (0.037)	ND (0.039)	ND (0.033)	ND (0.018)	ND (0.015)	ND (0.0069)	ND (0.074)	ND (0.14)	ND (0.073)	0.0264 J	ND (0.0065)	ND (0.0066)
Metals Analysis															
Antimony	mg/kg	450	31	3	3.4	4.5	<6.4 [c]	<5.1 [c]	<2.5	ND (2.6)	ND (2.6)	ND (2.5)	3.2	<2.3	<2.4
Arsenic	mg/kg	19	19	**57.2** [e]	**62.5** [e]	**25.8** [e]	**75.2** [c]	**22.9** [c]	10.5	**50.8**	**38.3**	13.1	**28.3**	9.4	12.5
Barium	mg/kg	59000	16000	204	246	108	266	135	62.1	199	183	79.2	142	43.5	57.2
Beryllium	mg/kg	140	16	0.33	0.35	1.2	0.7	0.62	0.44	0.66	0.66	0.41	0.66	0.27	0.37
Cadmium	mg/kg	78	78	1.7 [e]	2.1 [e]	0.91	2.2 [c]	<1.3 [c]	<0.61	ND (2.0) [c]	0.71	ND (0.62)	<0.59	<0.58	<0.60
Chromium	mg/kg	-	-	78.4	91.8	62.3	89.4	84.9	32.2	84.1	87.9	78.3	78.7	22.7	36.4
Cobalt	mg/kg	590	1600	12.4	14.5	10.8	15.2	9.3	<6.1	12.5	9.8	6.8	8.9	<5.8	<6.0

Table 1
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
No. 1 Landfarm Soil Analytical Results (2017-2020)

Client Sample ID:		NJ Non-Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	NJ Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	ZOI (0.0-1.5')	TZ (1.5-3.0')	VZ (3.0-4.0')	ZOI(0.5-1.0')	TZ(1.5-3.0')	UZ(3.0-4.0')	ZOI (0.5-1.0')	TZ (1.5-3.0')	UZ (3.0-4.0')	ZOI (0.5-1.0)	TZ (1.5-3.0)	UZ (3.0-4.0)
Lab Sample ID:				JD12200-1	JD12200-2	JD12200-3	JC93098-1	JC93098-2	JC93098-3	JC72494-1	JC72494-2	JC72494-3	JC46933-1	JC46933-2	JC46933-3
Date Sampled:				8/25/2020	8/25/2020	8/25/2020	8/12/2019	8/12/2019	8/12/2019	8/23/2018	8/23/2018	8/23/2018	7/13/2017	7/13/2017	7/13/2017
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Lead	mg/kg	800	400	148 [e]	170 [e]	114 [e]	172 [c]	92.4 [c]	37.8	140 [c]	101 [c]	76	89.2	34.1	47.5
Mercury	mg/kg	65	23	1.7	1.7	0.54	2	0.41	0.14	1.6	0.82	0.18	0.68	0.26	0.23
Nickel	mg/kg	23000	1600	1550 [e]	**1750**	348	**1710**	365	44	1270	751	186	491	115	157
Selenium	mg/kg	5700	390	14.2	16.6 [e]	ND (4.7) [e]	17.8 [c]	<5.1 [c]	<2.5	8.9 [c]	5.6 [c]	ND (2.5)	4.1	<2.3	<2.4
Vanadium	mg/kg	1100	78	**100** [e]	**112** [e]	52.6 [e]	**121**	54.5	34	**90.2**	72.8	34.1	54.9	23.2	31.1
General Chemistry															
HEM Oil and Grease	mg/kg	-	-	21700	27500	25200	10100	4730	2390	12400	7380	6170	9700	4520	3560
Nitrogen, Nitrate + Nitrite	mg/kg	-	-	46.4	39.1	36.5	<32	<27	<25	ND (28)	ND (28)	ND (27)	31.1	<25	<25
Nitrogen, Total	mg/kg	-	-	7550 [f]	7010 [f]	2230 [f]	9090 [d]	1850 [d]	402 [d]	6070 [d]	3470 [d]	797 [d]	2180 [b]	589 [b]	726 [b]
Nitrogen, Total Kjeldahl	mg/kg	-	-	7500	6970	2190	9090	1850	402	6070	3470	797	2150	574	710
Solids, Percent	%	-	-	77.2	71.9	84.4	64.1	76.3	83	74.4	74.9	77.7	80.6	84.9	82
Specific Conductivity	umhos/cm	-	-	111	179	227	108	275	158	133	434	946	723	727	936
pH	su	-	-	5.76	5.86	6.12	6.7	6.94	7.33	5.61	5.86	7.59	5.61	7.46	7.43

Footnotes:

[a] Associated CCV outside of control limits low.

[b] Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

[c] This compound is outside the advisory limits.

[d] The spike standard was not added in LCS.

[e] Elevated detection limit due to dilution required for high interfering element.

[f] Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Volatile Organic Compounds

Client Sample ID:	Date Sampled:	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cyclohexane	1,2-Dibromo-3-chloropropane	Dibromochloromethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Freon 113	2-Hexanone
NJ Groundwater Quality Standards		6000	1	-	1	4	10	300	700	1	50	-	70	-	-	0.02	1	0.03	600	600	75	1000	50	2	1	70	100	1	-	-	700	20000	40
L1-1	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.7	ND	ND	ND	ND	ND	ND	ND	ND	0.80 J	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.7	ND	ND	ND	ND	ND	ND	ND	ND	0.72 J	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	0.64 J	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.3	ND	ND	ND	ND	ND	ND	ND	ND	0.62 J	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.1	ND	ND	ND	ND	ND	ND	ND	ND	0.57 J	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Volatile Organic Compounds

Client Sample ID:	Date Sampled:	Isopropylbenzene	Methyl Acetate	Methylcyclohexane	Methyl Tert Butyl Ether	4-Methyl-2-pentanone(MIBK)	Methylene chloride	Styrene	Tert Butyl Alcohol	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Xylene (total)
NJ Groundwater Quality Standards		700	7000	-	70	-	3	100	100	1	1	600	-	9	30	3	1	2000	1	1000
L1-1	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Semi-Volatile Organic Compounds

Client Sample ID:	Date Sampled:	2-Chlorophenol	4-Chloro-3-methyl phenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	3&4-Methylphenol	2-Nitrophenol	4-Nitrophenol	Phenol	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(g,h,i)perylene	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	1,1'-Biphenyl	2-Chloronaphthalene	4-Chloroaniline	Carbazole	Caprolactam	Chrysene
NJ Groundwater Quality Standards		40	-	20	100	40	50	50	-	-	2000	200	700	20	400	-	700	2000	3	-	-	-	100	400	600	30	-	4000	5
L1-1	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.33 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26 J
BG-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Semi-Volatile Organic Compounds

Client Sample ID:	Date Sampled:	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl)ether	2,2'-Oxybis(1-chloropropane)	4-Chlorophenyl phenyl ether	2,4-Dinitrotoluene	2,6-Dinitrotoluene	3,3'-Dichlorobenzidine	Dibenzofuran	Di-n-butyl phthalate	Di-n-octyl phthalate	Diethyl phthalate	Dimethyl phthalate	bis(2-Ethylhexyl)phthalate	Fluoranthene	Fluorene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	2-Methylnaphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodiphenylamine	Phenanthrene	Pyrene
NJ Groundwater Quality Standards		-	7	300	-	-	-	30	-	700	100	6000	-	3	300	300	40	7	40	30	-	-	-	300	6	10	10	-	200
L1-1	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J
L1-2	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.30 J
L1-2	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25 J
L1-2	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28 J	ND	ND	ND	ND	ND
BG-2	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8 J	0.23 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**7/11/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**10/23/2019**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**1/21/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.20 J	0.62 J
BG-3	**4/14/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**7/15/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**10/7/2020**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32 J
BG-3	**1/28/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	**4/13/2021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Semi-Volatile Organic Compounds

Client Sample ID:	Date Sampled:	1,2,4,5-Tetrachlorobenzene	4,6-Dinitro-o-cresol	Pentachlorophenol	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Dibenzo(a,h)anthracene	Hexachlorobenzene	Hexachlorobutadiene	Indeno(1,2,3-cd)pyrene	1,4-Dioxane
NJ Groundwater Quality Standards		-	0.7	0.3	0.1	0.1	0.2	0.5	0.3	0.02	1	0.2	0.4
L1-1	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-1	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/11/2019	ND	ND	ND	ND	ND	0.0428 J	ND	ND	**0.0304 B**	ND	ND	ND
L1-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-2	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/11/2019	ND	ND	ND	**0.194**	ND	0.0463 J	0.0392 J	ND	ND	ND	ND	ND
L1-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
L1-4	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/21/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	4/14/2020	ND	ND	ND	0.0572	0.0639	0.143	ND	ND	ND	ND	0.0555 J	ND
BG-2	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-2	1/28/2021	ND	ND	ND	**0.168**	0.0575	0.166	ND	ND	ND	ND	0.0776 J	ND
BG-2	4/13/2021	ND	ND	ND	**0.166**	0.0645	0.167	ND	ND	ND	ND	0.0881 J	ND
BG-3	7/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/23/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/21/2020	ND	ND	ND	**0.554**	**0.233**	**0.297**	0.106	ND	ND	ND	0.119	**0.755**
BG-3	4/14/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	7/15/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	10/7/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG-3	1/28/2021	ND	ND	ND	ND	ND	ND	ND	ND	0.019	ND	ND	ND
BG-3	4/13/2021	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Former Port Reading Complex
750 Cliff Road
Port Reading, NJ
Summary of Groundwater Analytical Results (2019-2021)
Metals

Client Sample ID:	Date Sampled:	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
NJ Groundwater Quality Standards		200	6	3	6000	1	4	-	70	100	1300	300	5	-	50	2	100	-	40	40	50000	2	-	2000
L1-1	7/11/2019	**3830**	ND	2.8	ND	ND	ND	13200	ND	ND	ND	**5500**	**8.1**	ND	44.2	ND	11.5	ND	ND	ND	**69000**	ND	ND	60.9
L1-1	10/23/2019	**8010**	ND	**5.9**	ND	ND	ND	ND	15.3	ND	18	**12000**	**16.8**	ND	**61.2**	0.34	14.5	ND	ND	ND	**50500**	ND	ND	78.2
L1-1	1/21/2020	**346**	ND	ND	ND	ND	ND	5460	ND	ND	ND	**469**	ND	ND	ND	ND	ND	ND	ND	ND	**55300**	ND	ND	85.4
L1-1	4/14/2020	**385**	ND	ND	ND	ND	ND	6360	ND	ND	ND	**440**	ND	ND	ND	ND	ND	ND	ND	ND	**53800**	ND	ND	32.9
L1-1	7/15/2020	**1660**	ND	1.1	ND	ND	ND	ND	ND	ND	10.9	**1820**	3.5	ND	16.7	ND	ND	ND	ND	ND	**51100**	ND	ND	84.5
L1-1	10/7/2020	**4270**	NS	3	ND	NS	ND	NS	11.6	NS	NS	**6770**	**10.7**	NS	37	ND	NS	NS	ND	ND	44000	NS	NS	NS
L1-1	1/28/2021	NS	NS	ND	410	NS	ND	NS	ND	NS	NS	273	ND	NS	43.7	ND	NS	NS	ND	ND	**141000**	NS	NS	NS
L1-1	4/13/2021	NS	NS	ND	480	NS	ND	NS	ND	NS	NS	273	ND	NS	**63.9**	ND	NS	NS	ND	ND	**289000**	NS	NS	NS
L1-2	7/11/2019	ND	ND	**22.6**	ND	ND	ND	23600	ND	ND	ND	**14800**	ND	10700	**184**	ND	ND	ND	ND	ND	**93900**	ND	ND	ND
L1-2	10/23/2019	ND	ND	**25.4**	220	ND	ND	28200	ND	ND	ND	**16800**	ND	15600	**256**	ND	ND	ND	ND	ND	**131000**	ND	ND	ND
L1-2	1/21/2020	ND	ND	**15.9**	ND	ND	ND	26300	ND	ND	13.7	**17100**	ND	13600	**240**	ND	ND	ND	ND	ND	**111000**	ND	ND	ND
L1-2	4/14/2020	ND	ND	**19**	201	ND	ND	27200	ND	ND	ND	**22400**	ND	12800	**234**	ND	ND	ND	ND	ND	**94500**	ND	ND	ND
L1-2	7/15/2020	ND	ND	**27.3**	202	ND	ND	29600	ND	ND	ND	**23000**	ND	18100	**259**	ND	ND	ND	ND	ND	**163000**	ND	ND	23.8
L1-2	10/7/2020	ND	NS	**29.3**	<200	NS	<3.0	NS	<10	NS	NS	**19400**	ND	NS	**257**	<0.20	NS	NS	<10	<10	**153000**	NS	NS	NS
L1-2	1/28/2021	NS	NS	**18.2**	ND	NS	ND	NS	ND	NS	NS	**14600**	ND	NS	**228**	<0.20	NS	NS	<10	<10	**114000**	NS	NS	NS
L1-2	4/13/2021	NS	NS	**15.9**	ND	NS	ND	NS	ND	NS	NS	**14100**	ND	NS	**217**	<0.20	NS	NS	<10	<10	**106000**	NS	NS	NS
L1-3	7/11/2019	ND	ND	**13.5**	239	ND	ND	18500	ND	ND	ND	**21500**	ND	14200	**877**	ND	ND	ND	ND	ND	**89600**	ND	ND	ND
L1-3	10/23/2019	ND	ND	**21.8**	1030	ND	ND	109000	ND	ND	ND	**71200**	ND	79000	**2630**	ND	ND	ND	ND	ND	**662000**	ND	ND	31.6
L1-3	1/21/2020	ND	ND	**8.7**	276	ND	ND	28300	ND	ND	11.7	**14100**	ND	20000	**525**	ND	ND	ND	ND	ND	**80200**	ND	ND	43.2
L1-3	4/14/2020	**341**	ND	**5.2**	681	ND	ND	56000	ND	ND	18.7	**30400**	ND	46600	**795**	ND	ND	ND	ND	ND	**114000**	ND	ND	52.1
L1-3	7/15/2020	**983**	ND	**12.5**	ND	ND	ND	10400	ND	ND	ND	**6650**	3.5	7250	**204**	ND	ND	ND	ND	ND	**56600**	ND	ND	29.1
L1-3	10/7/2020	**212**	NS	**28.2**	421	NS	ND	NS	ND	NS	NS	**24700**	ND	NS	**596**	ND	NS	NS	ND	ND	**118000**	NS	NS	NS
L1-3	1/28/2021	NS	NS	**10**	ND	NS	ND	NS	ND	NS	NS	**7970**	ND	NS	**222**	ND	NS	NS	ND	ND	45900	NS	NS	NS
L1-3	4/13/2021	NS	NS	**5.9**	ND	NS	ND	NS	ND	NS	NS	**6220**	3	NS	**199**	ND	NS	NS	ND	ND	26400	NS	NS	NS
L1-4	7/11/2019	ND	ND	1.2	ND	ND	ND	74300	ND	ND	ND	258	ND	13000	34	ND	ND	ND	ND	ND	ND (10000)	ND	ND	ND
L1-4	10/23/2019	ND	ND	1.3	ND	ND	ND	67600	ND	ND	ND	ND	ND	10800	ND	ND	ND	ND	ND	ND	<10000	ND	ND	ND
L1-4	1/21/2020	ND	ND	1.1	ND	ND	ND	49700	ND	ND	ND	254	ND	9240	ND	ND	ND	ND	ND	ND	<10000	ND	ND	ND
L1-4	4/14/2020	ND	ND	1	ND	ND	ND	50200	ND	ND	10.4	**304**	ND	13600	31.2	ND	ND	ND	ND	ND	<10000	ND	ND	ND
L1-4	7/15/2020	ND	ND	2	ND	ND	ND	58300	ND	ND	ND	**586**	ND	12500	37.1	ND	ND	ND	ND	ND	<10000	ND	ND	ND
L1-4	10/7/2020	ND	NS	<3.0	ND	NS	ND	NS	ND	NS	NS	230	ND	NS	36	ND	NS	NS	ND	ND	<10000	NS	NS	NS
L1-4	1/28/2021	NS	NS	<3.0	ND	NS	ND	NS	ND	NS	NS	**407**	ND	NS	40	ND	NS	NS	ND	ND	<10000	NS	NS	NS
L1-4	4/13/2021	NS	NS	<3.0	ND	NS	ND	NS	ND	NS	NS	229	ND	NS	28	ND	NS	NS	ND	ND	<10000	NS	NS	NS
BG-2	7/11/2019	ND	ND	**15.7**	ND	ND	ND	27100	ND	ND	ND	**16400**	ND	8600	**165**	ND	ND	ND	ND	ND	**98700**	ND	ND	ND
BG-2	10/23/2019	ND	ND	**6.1**	ND	ND	ND	14800	ND	ND	ND	**4980**	ND	5560	**102**	ND	ND	ND	ND	ND	**105000**	ND	ND	30.1
BG-2	1/21/2020	ND	ND	**7**	ND	ND	ND	8540	ND	ND	ND	**3410**	ND	<5000	**57**	ND	ND	ND	ND	ND	**67600**	ND	ND	22.3
BG-2	4/14/2020	**483**	ND	**14.3**	ND	ND	ND	5520	ND	ND	11.5	**5840**	3.5	<5000	30.6	ND	ND	ND	ND	ND	19700	ND	ND	57.1
BG-2	7/15/2020	ND	ND	**15**	ND	ND	ND	6730	ND	ND	ND	**4450**	ND	<5000	43.9	ND	ND	ND	ND	ND	32300	ND	ND	59.2
BG-2	10/7/2020	**201**	NS	**19.2**	ND	NS	ND	NS	ND	NS	NS	**4970**	ND	NS	49.2	ND	NS	NS	ND	ND	49900	NS	NS	NS
BG-2	1/28/2021	NS	NS	**11.7**	ND	NS	ND	NS	ND	NS	NS	**8200**	**11.6**	NS	**64.7**	ND	NS	NS	ND	ND	**235000**	NS	NS	NS
BG-2	4/13/2021	NS	NS	**7.6**	ND	NS	ND	NS	ND	NS	NS	**2510**	3.3	NS	19.3	ND	NS	NS	ND	ND	38200	NS	NS	NS
BG-3	7/11/2019	ND	ND	**6.4**	ND	ND	ND	22100	ND	ND	ND	**10500**	ND	5500	**166**	ND	ND	ND	ND	ND	16900	ND	ND	ND
BG-3	10/23/2019	ND	ND	**14**	254	ND	ND	33000	ND	ND	ND	**24500**	ND	8340	**396**	ND	ND	ND	ND	ND	49400	ND	ND	ND
BG-3	1/21/2020	ND	ND	**5.6**	ND	ND	ND	29300	ND	ND	18.9	**12100**	ND	7140	**251**	ND	ND	ND	ND	ND	32300	ND	ND	29.1
BG-3	4/14/2020	ND	ND	**3.8**	ND	ND	ND	28300	ND	ND	ND	**8380**	ND	7310	**120**	ND	ND	ND	ND	ND	27900	ND	ND	ND
BG-3	7/15/2020	ND	ND	**30.1**	321	ND	ND	34700	ND	ND	ND	**67000**	ND	8500	**425**	ND	ND	ND	ND	ND	32900	ND	ND	21.2
BG-3	10/7/2020	ND	NS	**12.6**	ND	NS	ND	NS	ND	NS	NS	**16400**	ND	NS	**285**	ND	NS	NS	ND	ND	40900	NS	NS	NS
BG-3	1/28/2021	NS	NS	**5.6**	ND	NS	ND	NS	ND	NS	NS	**8530**	ND	NS	**91.1**	ND	NS	NS	ND	ND	28900	NS	NS	NS
BG-3	4/13/2021	NS	NS	<3.0	ND	NS	ND	NS	ND	NS	NS	**6180**	ND	NS	**198**	ND	NS	NS	ND	ND	21900	NS	NS	NS

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(SP-1, SP-2, and SP-3)

Client Sample ID:		NJ Groundwater	NJ Interim	SP-1	SP-2	SP-3
Lab Sample ID:		Criteria (NJAC	Groundwater	JD17665-1	JD17665-2	JD17888-3
Date Sampled:		7:9C 9/4/18)[1]	Criteria (NJAC	12/11/2020	12/11/2020	12/15/2020
Matrix:			7:9C 1/17/19)[2]	Ground Water	Ground Water	Ground Water
MS Volatiles (SW846 8260D)						
Acetone	ug/l	6000	-	ND (6.0)	ND (6.0)	ND (6.0) [a]
Benzene	ug/l	1	-	ND (0.43)	ND (0.43)	ND (0.43)
Bromochloromethane	ug/l	-	-	ND (0.48)	ND (0.48)	ND (0.48)
Bromodichloromethane	ug/l	1	-	ND (0.45)	ND (0.45)	ND (0.45)
Bromoform	ug/l	4	-	ND (0.63)	ND (0.63)	ND (0.63)
Bromomethane	ug/l	10	-	ND (1.6)	ND (1.6)	ND (1.6)
2-Butanone (MEK)	ug/l	300	-	ND (6.9)	ND (6.9)	ND (6.9)
Carbon disulfide	ug/l	700	-	ND (0.46)	ND (0.46)	ND (0.46)
Carbon tetrachloride	ug/l	1	-	ND (0.55)	ND (0.55)	ND (0.55)
Chlorobenzene	ug/l	50	-	ND (0.56)	ND (0.56)	ND (0.56)
Chloroethane	ug/l	-	5	ND (0.73)	ND (0.73)	ND (0.73)
Chloroform	ug/l	70	-	ND (0.50)	ND (0.50)	ND (0.50)
Chloromethane	ug/l	-	-	ND (0.76)	ND (0.76)	ND (0.76)
Cyclohexane	ug/l	-	-	ND (0.78)	ND (0.78)	ND (0.78)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (1.2)	ND (1.2)	ND (1.2)
Dibromochloromethane	ug/l	1	-	ND (0.56)	ND (0.56)	ND (0.56)
1,2-Dibromoethane	ug/l	0.03	-	ND (0.48)	ND (0.48)	ND (0.48)
1,2-Dichlorobenzene	ug/l	600	-	ND (0.53)	ND (0.53)	ND (0.53)
1,3-Dichlorobenzene	ug/l	600	-	ND (0.54)	ND (0.54)	ND (0.54)
1,4-Dichlorobenzene	ug/l	75	-	ND (0.51)	ND (0.51)	ND (0.51)
Dichlorodifluoromethane	ug/l	1000	-	ND (1.4)	ND (1.4)	ND (1.4)
1,1-Dichloroethane	ug/l	50	-	ND (0.57)	ND (0.57)	ND (0.57)
1,2-Dichloroethane	ug/l	2	-	ND (0.60)	ND (0.60)	ND (0.60)
1,1-Dichloroethene	ug/l	1	-	ND (0.59)	ND (0.59)	ND (0.59)
cis-1,2-Dichloroethene	ug/l	70	-	ND (0.51)	ND (0.51)	ND (0.51)
trans-1,2-Dichloroethene	ug/l	100	-	ND (0.54)	ND (0.54)	ND (0.54)
1,2-Dichloropropane	ug/l	1	-	ND (0.51)	ND (0.51)	ND (0.51)
cis-1,3-Dichloropropene	ug/l	-	-	ND (0.47)	ND (0.47)	ND (0.47)
trans-1,3-Dichloropropene	ug/l	-	-	ND (0.43)	ND (0.43)	ND (0.43)
Ethylbenzene	ug/l	700	-	ND (0.60)	ND (0.60)	ND (0.60)
Freon 113	ug/l	20000	-	ND (1.9)	ND (1.9)	ND (1.9)
2-Hexanone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.0)
Isopropylbenzene	ug/l	700	-	ND (0.65)	ND (0.65)	ND (0.65)
Methyl Acetate	ug/l	7000	-	ND (0.80)	ND (0.80)	ND (0.80)
Methylcyclohexane	ug/l	-	-	ND (0.60)	ND (0.60)	ND (0.60)
Methyl Tert Butyl Ether	ug/l	70	-	ND (0.51)	ND (0.51)	ND (0.51)
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (1.9)	ND (1.9)	ND (1.9)
Methylene chloride	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)
Styrene	ug/l	100	-	ND (0.49)	ND (0.49)	ND (0.49)
Tert Butyl Alcohol	ug/l	100	-	ND (5.8)	ND (5.8)	ND (5.8)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (0.65)	ND (0.65)	ND (0.65)
Tetrachloroethene	ug/l	1	-	ND (0.90)	ND (0.90)	ND (0.90)
Toluene	ug/l	600	-	ND (0.53)	ND (0.53)	ND (0.53)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (0.50)	ND (0.50)	ND (0.50)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (0.50)	ND (0.50)	ND (0.50)
1,1,1-Trichloroethane	ug/l	30	-	ND (0.54)	ND (0.54)	ND (0.54)
1,1,2-Trichloroethane	ug/l	3	-	ND (0.53)	ND (0.53)	ND (0.53)
Trichloroethene	ug/l	1	-	ND (0.53)	ND (0.53)	ND (0.53)
Trichlorofluoromethane	ug/l	2000	-	ND (0.40)	ND (0.40)	ND (0.40)
Vinyl chloride	ug/l	1	-	ND (0.79)	ND (0.79)	ND (0.79)

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Lab Sample ID:				JD17665-1	JD17665-2	JD17888-3
Date Sampled:				12/11/2020	12/11/2020	12/15/2020
Matrix:				Ground Water	Ground Water	Ground Water
m,p-Xylene	ug/l	-	-	ND (0.78)	ND (0.78)	ND (0.78)
o-Xylene	ug/l	-	-	ND (0.59)	ND (0.59)	ND (0.59)
Xylene (total)	ug/l	1000	-	ND (0.59)	ND (0.59)	ND (0.59)
MS Volatile TIC						
Total TIC, Volatile	ug/l	-	-	0	0	0
MS Semi-volatiles (SW846 8270E)						
2-Chlorophenol	ug/l	40	-	ND (0.80)	ND (0.81)	ND (0.82) [h]
4-Chloro-3-methyl phenol	ug/l	-	100	ND (0.87)	ND (0.88)	ND (0.89)
2,4-Dichlorophenol	ug/l	20	-	ND (1.2)	ND (1.3)	ND (1.3) [h]
2,4-Dimethylphenol	ug/l	100	-	ND (2.4)	ND (2.4)	ND (2.4)
2,4-Dinitrophenol	ug/l	40	-	ND (1.5)	ND (1.5)	ND (1.6) [j]
2-Methylphenol	ug/l	50	-	ND (0.86)	ND (0.87)	ND (0.89)
3&4-Methylphenol	ug/l	50	-	ND (0.85)	ND (0.87)	ND (0.88)
2-Nitrophenol	ug/l	-	-	ND (0.93)	ND (0.94)	ND (0.96) [h]
4-Nitrophenol	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.2) [h]
Phenol	ug/l	2000	-	ND (0.38)	ND (0.39)	ND (0.39)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (1.4)	ND (1.4)	ND (1.5) [h]
2,4,5-Trichlorophenol	ug/l	700	-	ND (1.3)	ND (1.3)	ND (1.3) [h]
2,4,6-Trichlorophenol	ug/l	20	-	ND (0.90)	ND (0.91)	ND (0.92) [h]
Acenaphthene	ug/l	400	-	ND (0.19)	ND (0.19)	ND (0.19)
Acenaphthylene	ug/l	-	100	ND (0.13)	ND (0.13)	ND (0.14)
Acetophenone	ug/l	700	-	ND (0.20)	ND (0.20)	ND (0.21)
Anthracene	ug/l	2000	-	ND (0.20)	ND (0.21)	ND (0.21)
Atrazine	ug/l	3	-	ND (0.43)	ND (0.44)	ND (0.45)
Benzaldehyde	ug/l	-	-	ND (0.28)	ND (0.28)	ND (0.29)
Benzo(g,h,i)perylene	ug/l	-	100	ND (0.33)	ND (0.34)	ND (0.34)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (0.39)	ND (0.40)	ND (0.40)
Butyl benzyl phthalate	ug/l	100	-	ND (0.44) [c]	ND (0.45) [c]	ND (0.46)
1,1'-Biphenyl	ug/l	400	-	ND (0.21)	ND (0.21)	ND (0.21)
2-Chloronaphthalene	ug/l	600	-	ND (0.23)	ND (0.23)	ND (0.24)
4-Chloroaniline	ug/l	30	-	ND (0.33)	ND (0.33)	ND (0.34)
Carbazole	ug/l	-	-	ND (0.22)	ND (0.22)	ND (0.23)
Caprolactam	ug/l	4000	-	ND (0.63)	ND (0.64)	ND (0.65)
Chrysene	ug/l	5	-	ND (0.17)	ND (0.17)	ND (0.18)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (0.27)	ND (0.27)	ND (0.28)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (0.24)	ND (0.24)	ND (0.25)
2,2'-Oxybis(1-chloropropane)	ug/l	300	-	ND (0.39)	ND (0.40)	ND (0.40)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (0.36)	ND (0.36)	ND (0.37)
2,4-Dinitrotoluene	ug/l	-	-	ND (0.54)	ND (0.54)	ND (0.55)
2,6-Dinitrotoluene	ug/l	-	-	ND (0.46)	ND (0.47)	ND (0.48)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (0.49)	ND (0.50)	ND (0.51)
Dibenzofuran	ug/l	-	-	ND (0.21)	ND (0.22)	ND (0.22)
Di-n-butyl phthalate	ug/l	700	-	ND (0.48)	ND (0.49)	ND (0.50)
Di-n-octyl phthalate	ug/l	100	-	ND (0.23) [c]	ND (0.23) [c]	ND (0.23)
Diethyl phthalate	ug/l	6000	-	ND (0.25)	ND (0.26)	ND (0.26)
Dimethyl phthalate	ug/l	-	100	ND (0.21)	ND (0.21)	ND (0.22)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (1.6) [c]	ND (1.6) [c]	ND (1.7)
Fluoranthene	ug/l	300	-	ND (0.17)	ND (0.17)	ND (0.17)

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Lab Sample ID:				JD17665-1	JD17665-2	JD17888-3
Date Sampled:				12/11/2020	12/11/2020	12/15/2020
Matrix:				Ground Water	Ground Water	Ground Water
Fluorene	ug/l	300	-	ND (0.17)	ND (0.17)	ND (0.17)
Hexachlorocyclopentadiene	ug/l	40	-	ND (2.7)	ND (2.7)	ND (2.8) [l]
Hexachloroethane	ug/l	7	-	ND (0.38)	ND (0.38)	ND (0.39)
Isophorone	ug/l	40	-	ND (0.27)	ND (0.27)	ND (0.28)
2-Methylnaphthalene	ug/l	30	-	ND (0.20)	ND (0.21)	ND (0.21)
2-Nitroaniline	ug/l	-	-	ND (0.27)	ND (0.27)	ND (0.28) [c]
3-Nitroaniline	ug/l	-	-	ND (0.38)	ND (0.38)	ND (0.39)
4-Nitroaniline	ug/l	-	-	ND (0.43)	ND (0.43)	ND (0.44)
Naphthalene	ug/l	300	-	ND (0.23)	ND (0.23)	ND (0.23)
Nitrobenzene	ug/l	6	-	ND (0.62)	ND (0.63)	ND (0.64)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (0.47)	ND (0.47)	ND (0.48)
N-Nitrosodiphenylamine	ug/l	10	-	ND (0.22)	ND (0.22)	ND (0.22)
Phenanthrene	ug/l	-	-	ND (0.17)	ND (0.17)	ND (0.18)
Pyrene	ug/l	200	-	ND (0.21)	ND (0.22)	ND (0.22)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (0.36)	ND (0.37)	ND (0.37)
MS Semi-volatiles (SW846 8270E BY SIM)						
4,6-Dinitro-o-cresol	ug/l	0.7	-	ND (0.15) [c]	ND (0.15) [c]	ND (0.15)
Pentachlorophenol	ug/l	0.3	-	ND (0.13)	ND (0.13)	ND (0.13) [c]
Benzo(a)anthracene	ug/l	0.1	-	ND (0.022)	ND (0.023)	ND (0.023)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.032)	ND (0.033)	ND (0.033)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.042)	ND (0.043)	ND (0.043)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.049)	ND (0.049)	ND (0.050) [c]
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.049)	ND (0.049)	ND (0.050)
Hexachlorobenzene	ug/l	0.02	-	ND (0.011)	ND (0.011)	ND (0.011)
Hexachlorobutadiene	ug/l	1	-	ND (0.049)	ND (0.049)	ND (0.050)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.049)	ND (0.049)	ND (0.050)
1,4-Dioxane	ug/l	0.4	-	ND (0.049)	ND (0.049)	ND (0.050)
MS Semi-volatile TIC						
Total TIC, Semi-Volatile	ug/l	-	-	0	0	0
Metals Analysis						
Aluminum	ug/l	200	-	**2650**	**2250**	ND (200)
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	2.4	**3.5**	**11.3**
Barium	ug/l	6000	-	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	ND (5000)	ND (5000)	12700
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	100	-	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	12.9	10.2
Iron	ug/l	300	-	**4140**	**5950**	**37400**
Lead	ug/l	5	-	**7.8**	**5.8**	ND (3.0)
Magnesium	ug/l	-	-	ND (5000)	ND (5000)	5830
Manganese	ug/l	50	-	32.1	19.9	**430**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	ND (10)	ND (10)

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Lab Sample ID:				JD17665-1	JD17665-2	JD17888-3
Date Sampled:				12/11/2020	12/11/2020	12/15/2020
Matrix:				Ground Water	Ground Water	Ground Water
Potassium	ug/l	-	-	ND (10000)	ND (10000)	ND (10000)
Selenium	ug/l	40	-	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	13200	ND (10000)	ND (10000)
Thallium	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	25.9	56.4	44.5
General Chemistry						
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	ND (200)	270

APPENDIX A

Earth Systems
Environmental Engineering

August 19, 2021

Via Email/Sharefile

Mr. Sam Abdellatif
Land and Redevelopment Programs Branch
US Environmental Protection Agency Region 2
290 Broadway, 25th Floor
New York, New York 10007-1866

Re: Semi-Annual Response to Comments – November 12, 2020
Hess Corporation Former Port Reading Complex (HC-PR)
750 Cliff Road
Woodbridge, Middlesex County, New Jersey
NJDEP PI# 006148
ISRA Case No. E20130449
EPA ID No. NJD045445483

Dear Mr. Abdellatif:

Earth Systems, Inc. (Earth Systems) has prepared this letter on behalf of Hess Corporation (Hess) regarding the draft comments provided by the New Jersey Department of Environmental Protection (NJDEP) and Environmental Protection Agency (EPA) relating to the Semi-Annual Report submitted on July 31, 2020. Please note that a meeting was held on January 12, 2021 to discuss this comment letter and meeting notes were uploaded to the portal on January 26, 2021.

NJDEP Comments & Earth Systems/Hess Responses

General Comments:

NJDEP Comment 1: A purpose of the well manual and Well Construction Summary Table (WCST) is to identify the screen interval from TOC for inclusion on the pre-printed FS data sheet. The screen interval from TOC should be included on all FS data sheets.

Earth Systems Response 1: The screen interval from Top of Casing (TOC) will continue to be included on all field sampling data sheets.

NJDEP Comment 2: The Department requests notification of a sampling event to observe field set up and implementation.

Earth Systems Response 2: The NJDEP will continue to be notified prior to all sampling events. Groundwater sampling is currently conducted on a quarterly basis for the landfarms and the next scheduled sampling event is in October.

NJDEP Comment 3: Some comments are duplicates from the 2020 Second and Third Quarter Progress Reports. Although there are duplicates, they are relevant to the review of the Semi-Annual Report and should be addressed.

Earth Systems Response 3: Noted. We will continue to address all comments.

Specific Comments:
Section 2.2- North Landfarm:

NJDEP Comment 1: State if the underground petroleum piping locations shown on North Landfarm figures between North Landfarm wells and North Ditch, and the piping extension shown to be west of LN-1, have been confirmed or if this is still pending.

Earth Systems Response 1: Pipeline locations are based on historic maps, field indications, and confirmed through multiple meetings with pipeline representatives. If invasive work will be conducted in an area, all pipeline locations will be further confirmed via One Call and a private utility survey.

NJDEP Comment 2: Include a note on figures when petroleum piping locations were confirmed.

Earth Systems Response 2: As explained above, pipeline locations are based on historic maps, field indications, and confirmed through multiple meetings with pipeline representatives. If invasive work will be conducted in an area, all pipeline locations will be further confirmed via One Call and a private utility survey. Once pipelines are confirmed in an area, a note will be added to all figures.

NJDEP Comment 3: Confirm piping invert elevations for evaluation with North Ditch tidal flow and water table fluctuations.

Earth Systems Response 3: Based on information from pipeline representatives, pipelines are generally 3 to 5 feet below grade. Pipeline inverts will be confirmed with a private utility survey, if necessary. This will allow us to further evaluate North Ditch tidal flow and water table fluctuations.

NJDEP Comment 4: Reports regarding North Landfarm closure state Buckeye is lining the tank basin area. Please provide additional information on the liner. If impermeable, this may affect ground water flow conditions. Please include this information and completion date in this section.

Earth Systems Response 4: Tankfield lining is currently being addressed as a separate topic. A response to the NJDEP/EPA questions regarding lining of the tankfields was uploaded on February 8, 2021 based on a meeting held February 5, 2021.To date, all groundwater monitoring data indicates that ground water flow is not impacted by the liner.

NJDEP Comment 5: All North Landfarm figures do not include storm water drainage features. Was this a figure omission, or were storm water collection basins eliminated?

Earth Systems Response 5: The removal of stormwater drainage features was an omission. All stormwater features are depicted on Figures 3 and 4 of the July 2021 Semi-Annual Report (and will continue to be depicted on these figures on all reports going forward).

Section 3.2- No. 1 Landfarm:

NJDEP Comment 1: State whether or not materials from the dimersol unit were ever applied to the No. 1 landfarm.

Earth Systems Response 1: As explained in Section 4.1 (Page 11) of the 2021 July Semi-Annual Report, there is no permit documentation which indicates that dimersol materials were ever applied to the No. 1 Landfarm.

Section 2.4, 3.4 and 4.4- Low-Flow Sampling Methodology:

FS data sheets – well information:

NJDEP Comment 1: The data sheets for the landfarm wells do not include the screen intervals from TOC. Screen intervals from TOC should be included on all FS data sheets.

Earth Systems Response 1: Screen intervals from TOC are included on all field sampling data sheets.

NJDEP Comment 2: All measurements on the FS data sheets must identify the reference point (BGS, TOC).

Earth Systems Response 2: Noted. These measurements will continue to identify the reference point used in all reports going forward.

NJDEP Comment 3: Not all shallow wells are screened across the water table. Pump placement must consider both bottom of casing/top of screen location (from TOC) and depth to water from TOC at shallow wells. For example, when the water table is above the top of screen at a shallow well, the pump intake should be 2-3' below the bottom of casing (2.5-3' has been previously identified based on midpoint of 5' screen interval wells, and pump intakes for volume average sampling).

Earth Systems Response 3: Pump placement depths are based on both screen interval from TOC and depth to water (DTW). All pump placement depths are consistently based on both screened interval and depth to water from TOC and documented on the field sampling data sheets.

NJDEP Comment 4: Horiba flow through cell volume: Cell volume needs to be considered with purge rate to ensure the stabilization reading time represents a complete exchange of water within the flow through cell. Purge rates can vary. The Department recommends that the volume of each flow through cell be identified and the minimum purge rate be established for a complete water volume exchange during the targeted 5-minute time interval. This minimum purge rate should be identified on the pre-printed FS data sheets for each well. Any lower purge rate would require more time between stabilization readings.

Earth Systems Response 4: As specified in the NJDEP Field Sampling Procedures Manual (FSPM), purge rates should be between 100 and 500 ml/min. A stabilization time of five (5) minutes between readings is sufficient time for a complete exchange of water in the flow cell at the minimum purge rate.

NJDEP Comment 5: Tubing length: ¼-inch teflon lined tubing is used. Please also include the following in the plan:

- Minimize tubing length between pump and flow through cell.
- Ensure tubing is always full, with no air/gas bubbles between pump and flow through cell and in flow through cell.
- If cascading flow in any "downslope" of tubing is observed with ¼ inch tubing, this indicates a problem with flow rate and tubing diameter. This can be mitigated by positioning the flow through cell above the top of casing and controlling tubing length (so pump is always pushing water upward).

Earth Systems Response 5: The above information is included in the Quality Assurance Project Plan, which is included with all of our formal groundwater sampling plans.

NJDEP Comment 6: Including the following information regarding purge rate:

- A first depth to ground water measurement after pump placement and before pump start.
- Provisions for purge rate modifications to stabilize, control, minimize drawdown beginning at the start of purge.
- Describe actions that result in lowering of pump at water table zone wells if drawdown cannot be controlled by pump rate adjustments from start of purge to completion.

Earth Systems Response 6: The above information is included in the Quality Assurance Project Plan, which is included with all of our formal groundwater sampling plans.

NJDEP Comment 7: Sampling description includes use of a needle valve. Typically, the tubing into the flow through cell is disconnected, purge rate is reduced, and sample collection is from the tubing to sample vials.

- Identify needle valve construction materials that contact ground water being sampled.
- If the needle valve is used to restrict the discharge rate, rather than controlling discharge rate at the pump, and depending on the size of the needle valve opening used to restrict flow, there is potential for VOC loss during sample collection. In general, the smaller the hole the finer the spray, and potentially a greater potential loss of VOCs. This needs further discussion.
- How long has a needle valve been being used in sample collection?

Earth Systems Response 7: The sampling description has been modified in Section 2.4 of the 2021 July Semi-Annual Report. A needle valve is not used during sampling and was incorrectly included in the previous sampling description.

NJDEP Comment 8: Include a summary of how leachate is collected, stored and then pumped/transferred to the current treatment works, and describe the leachate sample collection location/procedure within this collection system. Based on prior field visit description, the location is not conservative for VOCs.

Earth Systems Response 8: The following is a summary of the leachate sampling procedure:

- Leachate is collected in the leachate collection piping and gravity feeds to the leachate sump.
- The leachate sump contains a submersible pump, which transfers leachate to the manhole (holding sump).

- The holding sump contains the lag pump, which transfers leachate through the conveyance line and to the head of the treatment system.
- The leachate sample port (L1) is located at the head of the treatment system (after the conveyance line tie in and before any treatment process). The leachate sample is representative of the leachate and stormwater contained within the No.1 Landfarm - leachate collection system.

It should be noted that the leachate sampling procedures and our sampling process have been formally audited by NJDEP as recently as April 13, 2021 and June 16, 2021 and review feedback confirms that our process has no deficiencies.

Section 2.7, 3.7, 4.7 Conclusions- North Landfarm, South Landfarm, No. 1 Landfarm:

NJDEP Comment 1: Update Ground Water Sampling Plans: Provide updated ground water sampling plans for the North Landfarm, South Landfarm and No. 1 Landfarm, and No. 1 Landfarm leachate. Initial comments to support ground water sampling plan development were previously provided with the closure plan reviews. The sampling plans do not consider the soil boring locations and observations or soil sample results, and do not include SVOC analytical parameters at the North and South Landfarms. No. 1 Landfarm ground water and leachate sampling plan also needs to consider composite soil sample results at the three soil sample depths in ground water sampling plans and include ammonia in leachate sampling. No plans have been submitted to date.

Earth Systems Response 1: Updated Groundwater Sampling Plans are currently in process for all three (3) landfarms and will be submitted in 2021.

Figures and Tables:

NJDEP Comment 1: Figure 2: Shows oily water lagoon and piping/WWTP lifted from schematic figure in the CMP. This still needs to be corrected to the proper scale.

Earth Systems Response 1: The boundaries of the oily water lagoons (AOC 13) have been reviewed in conjunction with available schematics and aerial photographs and the depiction of AOC 13 features has been revised. Please note that the WWTP and associated features are no longer in use.

NJDEP Comment 2: Figure 3, 4, 5a and 5b: Is the petroleum pipeline location confirmed?

Earth Systems Response 2: Yes. Pipeline locations are based on historic maps, field indications, and confirmed through multiple meetings with pipeline representatives. If invasive work will be conducted in an area, all pipeline locations will be further confirmed via One Call and a private utility survey.

NJDEP Comment 3: Figure 3, 4, 5a and 5b: Were the storm water control features removed from tank basin area (not shown in Figure 4 and 5b)?

Earth Systems Response 3: No. Stormwater control features are depicted in Figures 2 through 8 of the July 2021Semi-Annual Report.

NJDEP Comment 4: Figure 6, 7, 8a, 8b: Include limits of surface water in detention basin. The DB-SW surface water elevation applies to the surface water area.

Earth Systems Response 4: The limits of the surface water in the detention basin are depicted on Figure 2.

NJDEP Comment 5: As commented on before: Oily water lagoon limits, mini-lagoon limits are questioned; the backwash lagoon limits are not shown; pipeline features from schematic drawing are still shown.

Earth Systems Response 5: The boundaries of the oily water lagoons (AOC 13) have been reviewed in conjunction with available schematics and aerial photographs and the depiction of AOC 13 features has been revised and confirmed.

NJDEP Comment 6: Include actual location of piping from API separator to former AWWTS.

Earth Systems Response 6: All known pipeline locations are depicted on Figure 2 included with the July 2021 Semi-Annual Report. Please note the API separator to the former AWWTS is not utilized by Hess.

NJDEP Comment 7: See South Landfarm comments on South Landfarm features (sump, historic connection to API Separator piping to AWWTS) and other figure corrections.

Earth Systems Response 7: See Reponses in South Landfarm section (Response to Section 2.7, 3.7, and 4.7)

Table 1:

NJDEP Comment 1: Clarify if column "DTB from TOC" is based on well construction record or field gauging. Both columns were requested in comments on the WCST (one reflecting well construction record TD from TOC, one reflecting field gauging TD from TOC).

Earth Systems Response 1: Table 1 documents DTB measurements from both the well construction record (titled DTB Original) and field gauging (titled DTB from TOC).

NJDEP Comment 2: Surface water gauging was not included in April 2020 gauging event.

Earth Systems Response 2: Surface water gauging was not conducted during the April 2020 gauging event due to an omission. Surface water gauging is now conducted monthly, and the measurements are recorded on Table 1 of the July 2021 Semi-Annual Report.

Table 2 and 3- North Landfarm Analytical Results:

NJDEP Comment 1: Confirm whether these are the only metals analyzed or the only metals reported. The list does not include all TAL metals.

Earth Systems Response 1: The analyte list is based on the original permit specifications. As discussed during the January 2021 meeting, revised pre/post closure groundwater sampling plans are being prepared for all landfarms and are targeted for submittal in 2021. The revised workplans will recommend utilizing the TAL metals list.

NJDEP Comment 2: SVOC analyses by SW-846 8270 need to be added to the sampling plans.

Earth Systems Response 2: The analyte list is based on the original permit specifications. The above requested analysis will be included in the revised groundwater sampling plan.

Table 4 and 5- South Landfarm Analytical Results:

NJDEP Comment 1: Confirm whether these are the only metals analyzed or the only metals reported. The list does not include all TAL metals.

Earth Systems Response 1: The analyte list is based on the original permit specifications. As discussed during the January 2021 meeting, revised pre/post closure groundwater sampling plans are being prepared for all landfarms and are targeted for submittal in 2021. The revised workplans will recommend utilizing the TAL metals list.

NJDEP Comment 2: SVOC analyses by SW-846 8270 need to be added to the sampling plans.

Earth Systems Response 2: The analyte list is based on the original permit specifications. As discussed during the January 2021 meeting, revised pre/post closure groundwater sampling plans are being prepared for all landfarms and are targeted for submittal in 2021. The above requested analysis will be included in the revised groundwater sampling plan.

Table 6 and Table 7- No. 1 Landfarm Analytical Results:

NJDEP Comment 1: 1,4-dioxane was identified in BG-3 in January 2020, but not in April 2020. This needs to be evaluated with other parts of the site and prior landfarm data sets.

Earth Systems Response 1: Groundwater analytical results from the landfarm monitoring wells and other site wells was evaluated in the Conceptual Site Model submitted to the NJDEP and USEPA in March 2021. Sitewide groundwater trends for 1,4-dioxane will continue to be monitored as new data is available.

Table 8 Leachate Results (January and June 2020):

NJDEP Comment 1: Confirm that 2-methylnaphthalene on the analyte list. If not, please explain.

Earth Systems Response 1: As discussed during the January 2021 meeting, the analyte list is based on the original permit specifications. The No. 1 Landfarm is in the last stage of closure permitting and the final remedial action (capping) will be conducted in late 2021/early 2022. Leachate will continue to be monitored for a limited time following capping and parameters will be added, if necessary.

NJDEP Comment 2: Confirm whether these are the only metals analyzed or the only metals reported. The list does not include all TAL metals.

Earth Systems Response 2: As discussed during the January 2021 meeting, the analyte list is based on the original permit specifications. The No. 1 landfarm is in the last stage of closure permitting and the final remedial action (capping) will be conducted in late 2021/early 2022. Leachate will continue to be monitored for a limited time following capping and the TAL Metals list will be utilized.

NJDEP Comment 3: Add ammonia to leachate sampling: sample location is not conservative for VOCs.

Earth Systems Response 3: Ammonia is analyzed as part of the tri-annual leachate sampling (per permit requirements), as summarized in Table 8 of the July 2021 Semi-Annual Report.

Appendix B- Field Sampling Data Sheets – Landfarm Wells:

NJDEP Comment 1: FS data sheets reflect well screen intervals BGS, not TOC. When WCST and well documentation questions are resolved, the well screen intervals **from TOC** must be reflected on the pre-printed FS data sheets for each well.

Earth Systems Response 1: The well screen interval on the field sampling data sheet is from the TOC.

NJDEP Comment 2: All well construction and sampling related measurements must include a reference point (BGS or TOC).

Earth Systems Response 2: All well construction and sampling related measurements will continue to include a reference point and specify whether the reference point is BGS or TOC.

NJDEP Comment 3: In consideration of the comments provided by the Department to resolve landfarm well screen intervals TOC, locations were highlighted where pump intakes were within the well casing, less than 2' from the bottom of casing/top of screen or top of water table, and where total drawdown exceeded 0.3'. Please see Attachment 1.

Earth Systems Response 3: The attachment was reviewed and as explained above, pump placement depths are based on both screen interval from TOC and DTW. All pump placement depths are documented on the field sampling data sheets.

NJDEP Comment 4: None of the South Landfarm wells are screened across the water table. This needs to be evaluated in the South Landfarm Ground Water Sampling plan in order to evaluate water quality closer to top of the water table. Existing wells should be maintained.

Earth Systems Response 4: As explained above, revised groundwater sampling plans are currently in process for the landfarms. The observation noted above will be evaluated in the preparation of the South Landfarm plan.

Should you have any questions or require additional clarification or information, please contact me at 732-739-6444 or via e-mail at ablake@earthsys.net. If you have any questions relating to the project and schedule moving forward, you can also contact Mr. John Schenkewitz of Hess Corporation at 609-406-3969.

Sincerely,

Amy Blake
Sr. Project Manager

c. Ms. Julia Galayda, NJDEP Case Manager (via email/Sharefile)
Mr. John Schenkewitz – Hess Corporation (via e-mail)
Mr. Rick Ofsanko – Earth Systems (via e-mail)
Mr. John Virgie – Earth Systems (via e-mail)

APPENDIX B

QUALITY ASSURANCE PROJECT PLAN

Pre & Post Closure Groundwater Sampling Plan
AOC 3 – No. 1 Landfarm
Hess Corporation – Former Port Reading Complex (HC-PR)
750 Cliff Road
Port Reading, Middlesex County, New Jersey
NJDEP PI# 006148
ISRA Case No. E20130449
EPA ID No. NJD045445483

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Table of Contents

INTRODUCTION

This Quality Assurance Project Plan (QAPP) was prepared by Earth Systems, Inc. (Earth Systems) for Hess Corporation, who is conducting Pre & Post Closure groundwater sampling activities at an environmental area of concern designated as AOC 3 – No. 1 Landfarm located at 750 Cliff Road, Port Reading (Woodbridge Township), Middlesex County, New Jersey (Property or site).

The purpose of this QAPP is to ensure that scientific data are acquired according to established methods and procedures designed to obtain results that are objective, true, repeatable, and of known accuracy. Specifically, this QAPP provides guidance and specifications to ensure that RI activities are planned and executed in a manner consistent with the Quality Assurance Objectives (QAO's) stated below:

- Field determinations and analytical results are valid through adherence to New Jersey Department of Environmental Protection (NJDEP) field procedures, NJDEP-approved analytical protocols, and calibration and preventive maintenance of equipment;
- Samples are identified and controlled through sample tracking systems and chain of custody procedures;
- Records are retained as documentary evidence of field activities and observations;
- Samples are collected and analytical data are validated in accordance with the NJDEP requirements; and
- Evaluations of the data are accurate, appropriate, and consistent throughout the project.

The contents of this QAPP are based on the NJDEP requirements as stated in the NJDEP Technical Requirements for Site Remediation and the Quality Assurance Project Plan Technical Guidance (Version 1.0, April 2014). This QAPP includes the following components:

- Problem Definition/Background;
- Project/Task Description;
- Project/Task Organization;
- Data Quality Objectives and Criteria for Measurement Data;
- Historical and Secondary Information/Data;
- Investigative Process Design;
- Field Instrumentation/Equipment Calibration and Frequency;
- Inspection/Acceptance of Supplies and Consumables;
- Sample Handling and Custody Requirements;
- Field Storage and Transport Procedures;
- Sample Containers, Preservation, and Holding Times;
- Analytical Methods Summary Table;
- Project Compounds and Analytical Summary;
- Analytical Quality Control;
- Laboratory Deliverables;
- Data and Records Management;
- Data Verification and Usability; and
- Corrective Action Processes.

As specific conditions and additional information warrant, this QAPP will be amended or revised to include site-specific quality assurance/quality control procedures.

Quality Assurance Project Plan
Pre & Post Closure Groundwater Sampling Plan
AOC 3 – No. 1 Landfarm
Hess Corporation – Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

1. Project Definition / Background

Project Definition

The property is owned by Hess Corporation and is located at 750 Cliff Road, Port Reading, New Jersey. This QAPP only addresses Pre & Post Closure groundwater sampling activities for AOC 3 – No. 1 Landfarm.

The No. 1 Landfarm began operations in December 1985 under a revised Part A Interim Status Permit granted by the NJDEP on April 26, 1984, and the RCRA Industrial Waste Management Facility (IWMF) Operating Permit (Interim NJPDES Discharge to Groundwater Permit #0028878 issued in April 1985) for operation of the No. 1 Landfarm.

The No. 1 Landfarm is lined with an impermeable compacted clay liner. Above the clay liner is a leachate collection system, which collects water that that has percolated through the treatment zone of the Landfarm. The leachate collection system was designed not to allow any leachate (soil-pore water) discharges into the groundwater.

The Landfarm was permitted to treat four (4) RCRA hazardous waste streams - API Separator Sludge (K-051), heat exchanger bundle cleaning sludge (K-050), leaded tank bottoms (K-052), and Tetraethyl Lead (TEL) tank bottoms (P-110).

As per the permit, quarterly groundwater monitoring is conducted at the No. 1 Landfarm for the following parameters:

No. 1 Landfarm (as per the October 24, 1984, Draft Interim NJPDES Permit #0028878):

- Select VOCs
- Select Semi-Volatile Organic Compounds (SVOCs)
- Metals
- Various General Chemistry parameters

In addition to the collection of quarterly groundwater samples for the No. 1 Landfarm; an untreated leachate sample is also collected triannually and soil composite sampling is conducted annually.

Analytical results for all sampling is summarized in the Semi-Annual Report, which is submitted in January and July of each year.

As per the Draft November 12, 2020, NJDEP comment letter and subsequent meeting on January 12, 2021; the NJDEP requested that a new groundwater monitoring plan be proposed for the No. 1 Landfarm, for both pre- and post-closure.

The overall project goals and objectives are summarized below:

- Pre & Post Landfarm Closure - groundwater monitoring.

The analytical data shall be used to determine if further groundwater investigation is required. These decisions shall be made following receipt of all analytical data associated with the investigation. Data users for the project include the person responsible for conducting the remediation, the environmental consultant, and ultimately, the NJDEP.

2. Project / Task Description

Earth Systems/Hess recommends that the following revisions to the groundwater sampling plan be conducted for the next four (4) rounds of quarterly groundwater sampling. After four (4) rounds, the analytical results can be evaluated with the current closure status of the landfarm to determine if any additional modifications to the sampling plan are warranted.

No. 1 Landfarm
A RAW, which included recommendations for post-closure groundwater monitoring, was submitted in 2016. The 100% Soil RAD for the landfarm engineering control was originally submitted in May 2019. Based on October 2019 NJDEP/USEPA comments, a revised 100% Soil RAD for was submitted on December 17, 2019. The NJDEP/USEPA issued an approval letter for the 100% design on April 28, 2020. All permits have been approved by the NJDEP and other applicable agencies. Closure activities, as specified in the approved RAD, are currently being coordinated.

The NJDEP requested that the current groundwater sampling plans be revised prior to closure of the landfarms. Therefore, a review of the No. 1 Landfarm analytical results was conducted, and Earth Systems/Hess recommends the following:

- No additional wells are recommended to be installed as part of the groundwater investigation of the No. 1 Landfarm (there are currently sufficient monitoring wells installed in the area)
- Include Monitoring wells SP-1, SP-2, and SP-3 in quarterly groundwater sampling activities (currently these wells are only gauged as part of quarterly North Landfarm gauging activities)
- Modify groundwater sampling parameters to the following:
    - VOCs (for monitoring wells SP-1, SP-2, and SP-3 only for a minimum of 4 quarters)
        - If VOC results are below applicable GWQS after four (4) quarterly rounds of samples for SP wells – a modification of sampling parameters will be requested
        - VOC analytical results are below applicable GWQS for the last eight (8) rounds of sampling for wells L1-1 through L1-4, BG-2, and BG-3

- SVOCs (Method SW846) for all wells sampled
- Metals for all wells sampled
- Ammonia for all wells samples

Sample results shall be compared to the applicable remediation standards and a conclusion shall be made, based on the comparison, as to whether the Area of Concern (AOC) requires further investigation / action or no further investigation / action is required.

The applicable regulatory quality standards to this phase of investigation are:

- NJDEP Groundwater Quality Standards (GWQS)

3. Project / Task Organization

The NJDEP's "Quality Assurance Project Plan Technical Guidance" recommends that the QAPP include an organizational chart identifying key personnel and/or organizations showing relationships and lines of communication. As stated in Section 5 of the guidance, not all elements of the QAPP may need the same level of detail, which should be based on a graded approach depending on the complexity of the project and the intended use of the data. In this regard, since the number of personnel and organizations is relatively small, the relationships can be described rather than depicted in a chart.

Project Team

The Licensed Site Remediation Professional (LSRP) is John Virgie of Earth Systems. He also serves as the central point of communication with all other individuals and organizations associated with this project. He is responsible for implementing the Quality Assurance Project Plan and coordinating the site investigation activities. He can be reached at (732) 739-6444.

The Senior Project Manager is Ms. Amy Blake of Earth Systems. She is responsible for coordinating the site investigation activities in the field and tabulating/interpreting the analytical data once received. She can be reached at (732) 739-6444.

The Health and Safety Officer and Project Manager for Earth Systems is Mr. Michael Piegaro. He can be reached at (732) 739-6444.

Laboratory: SGS North America: 2235 U.S. Highway 130, Dayton, New Jersey 08810 (Contact: Ms. Shalini Williams @ Shalini.Williams@sgs.com).

Special Training Needs/Certification

Training needs and certifications of field oversight include requirements to have completed the OSHA 40-Hour training with annual 8-hour refresher training in accordance with 29 CFR 1910.120 (Hazardous waste operations and emergency response). In addition, site workers must have a TWIC card and at least one person on-site must have completed Buckeye Person-In-Charge (PIC) training.

The site investigation activities are being conducted under the oversight of an LSRP.

Special training is required to operate laboratory equipment and conduct laboratory analyses. Laboratory certification is established at N.J.A.C. 7:18.

4. Data Quality Objectives and Criteria for Measurement Data

Data quality objectives ("DQOs") are qualitative and quantitative statements that are developed in the first six (6) steps of the DQO process. DQOs define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data.

In accordance with Section 5.4 of the NJDEP's "Quality Assurance Project Plan" technical guidance, the development of the data quality criteria can be developed through the formal DQO process described in the EPA document titled "Guidance for the Data Quality Objectives Process", EPA/600/R-96/055. For most projects, however, a less iterative process is normally used to develop the project-specific DQOs.

Data of Known Quality Protocols ("DKQP") describe specific laboratory quality assurance and quality control procedures which, if followed, will provide data of known and documented quality (i.e. scientific reproducible and reliable data). When data of known quality ("DKQ") is obtained, an evaluation of the data with respect to its intended purpose can be made. To this end, a NJDEP-certified laboratory must be used to analyze samples whenever possible.

Typical DQOs are often expressed in terms of data quality indicators ("DQIs") including precision, accuracy, representativeness, comparability, completeness and sensitivity (also known as the "PARCCS" parameters). These measures of performance are discussed in detail below.

<u>Precision</u>
Precision is the measure of agreement among repeated measurements of the same property under identical or substantially similar testing conditions. The investigator will determine the precision of the data by:

- Using the same analytical methods to perform repeated analyses on the same sample (laboratory or matrix duplicates);

Precision for laboratory and field measurements can be expressed as the relative percent difference ("RPD") between two duplicate determinations or percent relative standard deviation ("%RSD") between multiple determinations.

<u>Accuracy</u>
Accuracy is the degree of agreement of a measured value and an accepted reference or true value. The difference between the measured value and the reference or true value includes components of both systematic error (bias) and random error (precision). It should be noted that precise data may not be accurate data. Accuracy can be expressed as a percent recovery or percent deviation of the measurement with respect to its known or true value.

The accuracy will be determined through establishing acceptance criteria for spike recoveries (e.g., surrogate recoveries, laboratory control sample recoveries, matrix spike recoveries, reference material recoveries etc.) or allowable deviations for calibration (e.g., %RPD for calibration verification). Acceptance

criteria for matrix spike measurements are expressed as a percent recovery and are usually specified in the analytical method (or laboratory SOP, as applicable). Various blank samples (laboratory or field) may also be used to assess contamination of samples that may bias results high. Accuracy in the field shall be assessed through the adherence to sample collection, handling, preservation, and holding time requirements.

Representativeness

Representativeness is a qualitative measurement that describes the extent to which analytical data represent the site conditions. In almost every project, the investigator will not be able to measure the whole system, process, or situation of interest. Instead, the investigator will choose sample locations, quantities, and analyses in order to capture a sufficiently broad and/or weighted view of the situation.

Representativeness in the laboratory is ensured by using the proper analytical procedures, appropriate methods, and meeting sample holding times. Following the detailed requirements outlined in the EPA methods and the laboratory SOPs will maximize the representativeness of the laboratory data.

Comparability

Comparability is a qualitative term that expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Comparability is defined as the extent to which data from one data set can be compared directly to similar or related data sets and/or decision-making standards.

Historical data should be evaluated to determine whether they may be combined with data being collected in present time. Comparability should discuss comparisons of sample collection and handling methods, sample preparation, and analytical procedures, holding times, stability issues and QA protocol.

Comparability in the laboratory is dependent on the use of recognized methods and approved laboratory SOPs. Comparability in the field is dependent upon adherence to the sampling methodology and that the proper preservation techniques are used.

Completeness

Completeness is a measure of the amount of usable data collected compared to the amount of data expected to be obtained. Three measures of completeness are defined as:

- Sampling completeness, defined as the number of valid samples collected relative to the number of samples planned for collection;
- Analytical completeness, defined as the number of valid sample measurements relative to the number of valid samples collected; and
- Overall completeness, defined as the number of valid sample measurements relative to the number of samples planned for collection.

Sensitivity

Sensitivity refers to the ability of an analytical procedure to quantify an analyte at a given concentration. The sensitivity requirements should be established such that the laboratory method Reporting Limits ("RLs") are at or below the relevant and applicable regulatory limits for each Contaminant of Concern ("COC") for the project. For the purpose of SRP projects:

- The RL for a specific substance when determining the extent and degree of polluted soil, groundwater, or sediment from a release. For the purpose of this document, the RL is defined as:

- Organics, the lowest initial calibration standard as adjusted for the dilution factor, sample weight/volume, and moisture content;
- Inorganics, the concentration of that analyte in the lowest level check standard (which could be the lowest calibration standard in a multi-point calibration curve).

Methods for analysis have been chosen to meet the sensitivity requirements for a project (e.g., compound-specific and matrix-specific). If however, the laboratory RLs exceed the project sensitivity requirements (i.e., the RL is above the relevant and applicable regulatory standard), the analytical methods may need to be adjusted (e.g., analysis conducted using a more sensitive method or sample preparation and analysis features adjusted to gain sensitivity) and/or the project objectives may need to be adjusted (i.e., certain COCs may not be able to be screened out during this phase of the evaluation).

5. Historical and Secondary Information / Data

The potential sources of data for any project include both historical data (i.e. data not collected by the current investigator) and secondary data (i.e. data that were collected for a different purpose than that for which they are now being used). Historical data should be evaluated for applicability to current project objectives. Secondary data should be assessed to determine if the quality of the data is sufficient for the current project objectives and meets comparability criteria (it is not sufficient that the secondary data were produced by a reliable source or a known environmental monitoring project with an approved QAPP).

6. Investigation Process Design

A description and justification of the investigation design should include, for each area of interest:

- The COCs or other parameters of interest
- The number of anticipated investigation points and how and why they will be selected including a site map depicting proposed sample locations
- Method of obtaining/determining locational information (such as the use of GPS instrumentation)
- Factors which could affect the variability of the data such as physical obstructions, seasonal variations, tidal influences, soil profile changes, weather-related variation, and process variation within the source
- Design basis i.e. probability based or judgment based
- Results comparison (i.e. versus previous data, regulatory standards, reference population, etc.)
- Matrices to be monitored including any special sampling requirements
- Monitoring frequency (if applicable)
- Heterogeneity or homogeneity of the matrix
- Appropriateness of composite samples
- Required quality control samples

The investigative process design is based generally on the following:

- The Technical Requirements for Site Remediation N.J.A.C. 7:26E.
- The NJDEP's "Field Sampling Procedures Manual (FSPM)" dated August 2005.

7. Field Quality Control (Low Flow Groundwater Sampling Method)

Groundwater samples will be collected via low-flow sampling methodology in accordance with the NJDEP's *FSPM*. Earth Systems is certified by the NJDEP Office of Quality Assurance (OQA) for analysis of "analyze immediately" parameters (NJ Lab ID No. 13040).

Groundwater samples will be collected in laboratory supplied glassware and transferred to SGS-Accutest Laboratories (SGS) of Dayton, New Jersey (NJ NELAP Certification No. 12129) under strict chain of custody procedures.

Prior to groundwater purging, the pump intake depth placement will be determined by water level, screen depth, and contaminants of concern. The depth of the pump will be recorded on the low-flow field worksheets. Groundwater purging will be conducted at each well utilizing a Monsoon submersible pump with Teflon-lined ¼ inch polyethylene tubing. Groundwater field parameters will be collected using a Horiba U-52 water quality meter and flow cell. The field parameters that will be monitored include: temperature, conductivity, dissolved oxygen, turbidity, redox potential, and pH. Groundwater elevation measurements will be collected utilizing a Solinist oil/water interface probe. Groundwater elevations will be recorded prior to pump placement and continuously during well purging. The total depth of the well will be measured either 48 hours prior to well sampling or at the conclusion of well sampling (and noted in the well sampling field sheets). During well purging, the monitored parameters will be measured every 5 minutes until three consecutive stable readings are recorded. In accordance with the FSPM Section 6.9.2.2.5.2, the following values are utilized to determine stability for the monitored parameters:

- pH +/- 0.1 unit
- Specific Conductance +/- 3%
- Temperature +/- 3%
- Dissolved Oxygen +/- 10%
- Turbidity +/- 10% for values greater than 1 NTU
- ORP +/- 10 millivolts
- Water level drawdown <0.3 feet

The parameter readings and the water level drawdown will be recorded on the low-flow field worksheets. Any variances will also be recorded on the low-flow stabilization sheets.

Prior to and at the completion of groundwater sampling of each monitoring well, the Horiba U-52 water quality meter, flow cell, and submersible pump will be properly decontaminated using Alconox and a distilled or deionized water rinse. Tubing will be discarded after sampling of each well and will not be reused.

To ensure that the groundwater samples being collected are representative, the following will also be monitored as part of each groundwater sampling plan:

- Minimize tubing length between pump and flow through cell.
- Ensure tubing is always full, with no air/gas bubbles between pump and flow through cell and in flow through cell.
- If cascading flow in any "downslope" of tubing is observed with ¼ inch tubing, this indicates a problem with flow rate and tubing diameter. This can be mitigated by positioning the flow through

cell above the top of casing and controlling tubing length (so pump is always pushing water upward).

As per the FSPM, groundwater purge rates will range between 100 and 500 ml/min and will be adjusted in the first 5-10 minutes of well purging. If drawdown is greater than 0.3 feet, then the purge rate will be lowered to the minimal accepted purge rate (100 ml/min). Please note that drawdown can exceed 0.3 feet during pump start up and then recover as flow rate adjustments are made. If drawdown continues even at the lowest recommended purge rate, an evaluation of pump placement depth and water level depth will be conducted to determine if the pump needs to be lowered further into the well. The pump must be placed within the saturated portion of the well screen, biased towards the interval with the highest potential impacts.

8. Field Instrumentation / Equipment Calibration and Frequency

Field instrumentation/equipment that will require calibration includes a photoionization detector (PID) and water quality meter. Calibration and routine maintenance procedures are presented in the User's Manual. Documentation of the maintenance and calibration records is stored at the office or in the field logbook.

The Horiba U-52 will be calibrated by both the rental company as well as by field personnel. The Horiba will be calibrated in accordance with the manufacturer's instructions and in accordance with Earth Systems' Standard Operating Procedures.

9. Inspection / Acceptance of Supplies and Consumables

Critical supplies or consumables (e.g., pre-cleaned containers, pre-preserved containers, tubing, etc.) shall be inspected for visible indications of contamination and damage and, if none are identified, then the supplies/consumables shall be accepted for use.

10. Sample Handling and Custody Requirements

Sample handling shall be as specified in Section 2.5.5.1 of the FSPM and Section 4.6.2.2 of the NJDEP's "Data Quality Assessment and Data Usability Evaluation Technical Guidance", Version 1.0, dated April 2014. Specifically, samples shall be maintained on-site for no more than two (2) consecutive days, and shall be delivered to the laboratory within one (1) day of shipment from the field.

The chain of custody procedure to be utilized in the field is specified in Section 2.3.6 of the FSPM. The chain of custody procedure to be used in the laboratory shall be in accordance with Section 2.3.6 of the FSPM as well as the laboratory's standard operating procedure.

11. Field Storage and Transport Procedures

Samples shall remain in direct site and in the custody of field personnel at all times until transfer to the laboratory.

12. Sample Containers, Preservation, and Holding Times

Sample containers, preservation, and holding times are specified on Table 1.

13. Analytical Methods Summary Table

Analytical methods are summarized on Table 1.

14. Project Compounds and Analytical Summary

All groundwater samples will be analyzed for TCL VO+15, TCL SVOCs +15, TAL Metals, and ammonia. The project action limits are the NJDEP's GWQS. The analytical methods chosen can meet the DQOs of the project.

Analytical sensitivity requirements include the use of instruments or methods to detect the contaminants of concern at or below the action limits. The RLs are expected to be below the applicable regulatory standards. NJDEP and EPA methods were selected to achieve the action limits. Laboratories may need to adjust RLs based on dilutions, sample sizes, extract/digestate volumes, percent solids and cleanup procedures. Sensitivity will be maximized by following the NJDEP and EPA methods or laboratory SOPs utilizing experienced, trained laboratory personnel and by conducting laboratory audits.

15. Analytical Quality Control

Quality assurance and quality control ("QA/QC") requirements for analysis are specified in the most recent version of the document titled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", prepared by EPA. The laboratory may also have QA/QC procedures in addition to those specified by the test method (Appendix 1).

16. Laboratory Deliverables

The laboratory deliverable format to be used for this project shall be the reduced laboratory deliverable format as described in Appendix A of N.J.A.C. 7:26E. The laboratory shall also generate Hazsite files and spreadsheets of the analytical results.

17. Data and Records Management

The recording media for the project will be both paper and electronic. The project will implement proper document control procedures for both, consistent with NJDEP's Quality Management Plan. For instance, hand-recorded data records will be taken with indelible ink, and changes to such data records will be made by drawing a single line through the error with an initial by the responsible person. The Project Manager will have ultimate responsibility for any and all changes to records and documents. Similar controls will be put in place for electronic records.

The Quality Assurance Coordinator shall retain all updated versions of the QAPP and be responsible for distribution of the current version of the QAPP. The Quality Assurance Coordinator and the Project Manager will approve periodic updates. The Project Manager shall retain copies of all management reports, memoranda, and all correspondence between the parties identified in Section 3.

Project data shall be stored in the Project Manager's office. Laboratory records management is described in Appendix 1.

18. Data Verification and Usability

The procedure for review (verification and usability procedures) including data assessment versus stated data quality objectives of the investigation is specified in the NJDEP's "Data Quality Assessment and Data Usability Evaluation Technical Guidance", Version 1.0, dated April 2014.

19. Corrective Action Processes

Corrective action in the field may be needed when the work plan is modified (i.e. number or locations of samples) or when sampling procedures and/or field analytical procedures require modification due to unexpected conditions. The corrective action may be implemented at the time the determination is made in the field or may be implemented later, depending on the circumstances. Any corrective actions taken shall be documented in the field logbook and in the technical report.

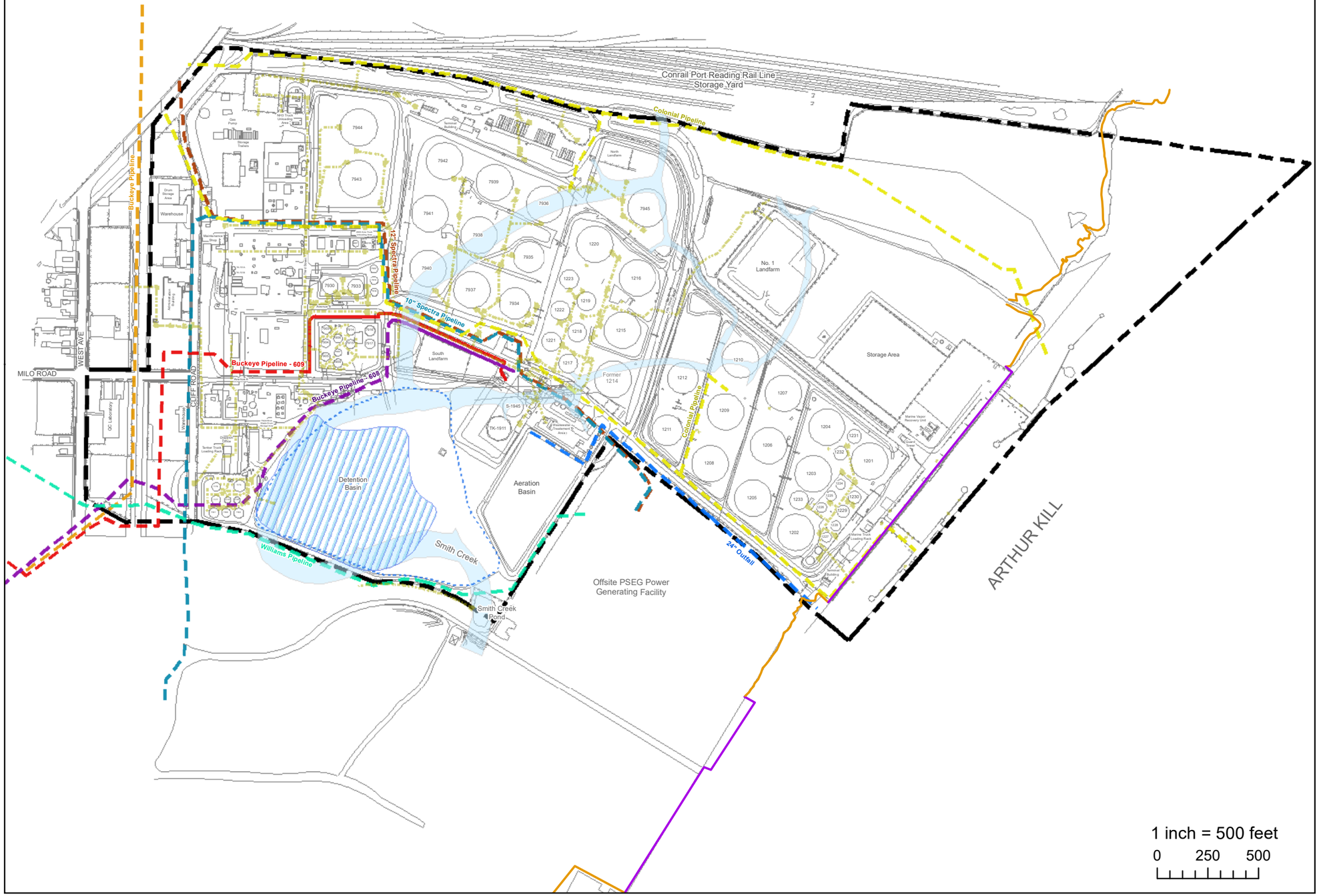
Corrective actions in the laboratory may be needed when Non-Conformances occur. The laboratory shall implement and document corrective actions in accordance with the laboratory SOP.

Table 1: Analytical Methods / Quality Assurance Summary Table

TABLE 1
Analytical Methods/Quality Assurance Summary Table
AOC 3 – No. 1 Landfarm, Hess Corporation - Former Port Reading Complex, Port Reading, Middlesex County, New Jersey

Matrix type	Number of Samples	Number of Blanks	Number of Duplicates	Analytical Parameters	Analytical Methods	Sample Preservation	Sample Container & Volume	Permissible Holding Time
Groundwater	See plan	1 per event	0	Volatile Organic Compounds	8260	4°C, HCl	Clear glass 40 ml	14 days
Groundwater	See plan	1 per event	0	Ammonia	SM4500NH3	H2SO4	Clear glass 60 ml	28 days
Groundwater	See plan	1 per event	0	Metals	SW846/6010	HNO3 to pH<2	500-ml Amber	6 months
Groundwater	See plan	1 per event	0	SVOCs	8270 & SIM	<6°C	2 x 1000-ml Amber	7 days extraction/40 days holding time

Figure 1: Site Location Map



1 inch = 500 feet

0 250 500

LEGEND

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline
- Bulkhead

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Williams Pipeline
- Sitewide Utilities/Wastewater

Utility and Pipe Line Note:
- Solid Line: Above-ground
- Dotted Line: Underground

FIGURE: 1
Site Plan

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	03/25/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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Figure 2: Location of Area of Concern

AOC 7 & 72 Colonial Pipeline
AOC 61 Inactive Railroad Spur
AOC 17 Former Coal Dock Area
AOC 1 North Landfarm
AOC 63 Former Rail Lines (Vacant Land North)
AOC 102 Vacant Land (South)
7945
AOC 35 No. 1 Landfarm Discharge Sumps
AOC 4 Dredge Spoils Area
AOC 3 No.1 Landfarm
1220
AOC 15a Former Underground Storage Tanks
1216
AOC 104 North Drainage Ditch
Fifth Street
AOC 54 Third Tankfield
1215
AOC 6 Former Oily Waste UST
AOC 55 Fourth Tankfield
AOC 66 Railroad Spur
AOC 66
AOC 100 Laydown Yard
AOC 103 Fire Pits/ Fire Areas
AOC 103 Fire Pits/ Fire Areas
AOC 115 Diesel Powered Pump
1210
1212
AOC 15c
Former 1214
AOC 95 Waste Water Treatment
Former Underground Storage Tanks
1207
AOC 15b
1209
AOC 91 North Dock Yard
AOC 85 Marine Vapor Recovery Unit
AOC 21 X-1933 (Adsorber Feed Sump)
1211
1204
AOC 105 North/South Docks
AOC 22 X-1908 (Clarifier Lift Sump)
AOC 56 Second Reserve Tankfield
1231
1206
1232
Guard Tower
1201
1208
1203
AOC 81 Former Marine Terminal Building
10" Spectra Pipeline
AOC 70
24" Outfall
AOC 7 & 72 Colonial Pipeline
1224
1225
1230
1205
1233
Marine Truck Loading Rack
1226
Arthur Kill

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

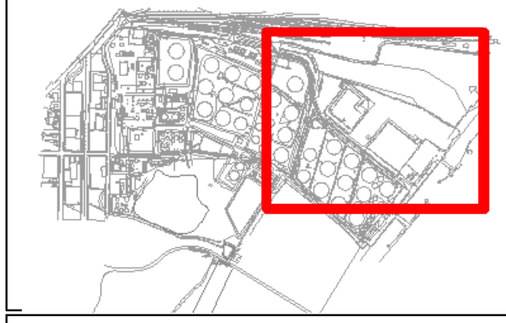

FIGURE: 2
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/26/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

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Appendix 1: Laboratory Quality Systems Manual

Quality Systems Manual

Volume XVIII, Revision VI: July 2018

Effective Date: July 11, 2018

Document Control Number: 124

A. Paul Ioannidis

Laboratory Director

Signature

Charles E. Hartke

Quality Assurance Director

Signature

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Introduction

The SGS North America Inc. (hereafter referred to as SGS) Quality Assurance System, detailed in this plan, has been designed to meet the quality program requirements of the National Environmental Laboratory Accreditation Program (NELAP), ISO 17025, the Department of Defense Environmental Laboratory Approval Program (DOD ELAP) and other National environmental monitoring programs. The plan establishes the framework for documenting the requirements of the quality processes regularly practiced by the Laboratory. The Quality Assurance (QA) Director is responsible for changes to the Quality Assurance Program, which is appended to the Quality System Manual (QSM) during the annual program review. The plan is also reviewed annually for compliance purposes by the Vice President (VP) for the Environment, Health & Safety (EHS) division of SGS North America Inc. and by the Laboratory Director, and edited if necessary. Changes that are incorporated into the plan are itemized in a summary of changes following the introduction. Plan changes are communicated to the general staff in a meeting conducted by the QA Director following the plan's approval.

The SGS plan is supported by standard operating procedures (SOPs), which provide specific operational instructions on the execution of each quality element and assure that compliance with the requirements of the plan are achieved. SGS employees are responsible for knowing the requirements of the SOPs and applying them in the daily execution of their duties. These documents are updated as changes occur and the staff is trained to apply the changes.

At SGS, we believe that satisfying client requirements and providing a product that meets or exceeds the standards of the industry is the key to a good business relationship. However, client satisfaction cannot be guaranteed unless there is a system that assures the product consistently meets its design requirements and is adequately documented to assure that all procedural steps are executed, properly documented and traceable.

This plan has been designed to assure that this goal is consistently achieved and the SGS product withstands the rigors of scrutiny that are routinely applied to analytical data and the processes that support its generation.

Summary of Changes

Section	Page(s)	Description
Title Page	1	Update Signatures of Lab Director and Quality Assurance Director
Mission and Quality Policy	5 – 6	Updated Mission, Quality Policy and Professionalism Statement
Organization	7	Update Dayton organization chart
Organization	8	Update QA organization chart

Table of Contents

1.0 MISSION AND QUALITY POLICY

1.1 SGS NORTH AMERICA INC. MISSION:

SGS North America Inc. provides analytical services to commercial and government clients in support of environmental monitoring and remedial activities as requested. SGS North America Inc.'s mission is dedicated to providing accurate and reliable data that satisfies client requirements as explained in the following:

"Deliver value to our clients by providing easy access to accurate and timely analytical information which meets or exceeds their expectations."

These services are provided impartially and are not influenced by undue commercial or financial pressures which might impact the staff's technical judgment. SGS North America Inc. does not engage in activities that endanger the trust in our independent judgment and integrity in relation to the testing activities performed.

1.2 QUALITY POLICY AND PROFESSIONALISM STATEMENT:

Quality and Professionalism are integral parts of SGS' Business Principles and are a cornerstone of ensuring high levels of customer satisfaction. By maintaining operational excellence, we ensure the long-term sustainability of our business.

IT IS OUR AIM TO

- Deliver world-class services to meet our customers' needs.
- Be known and recognised for our superior knowledge and reliability, along with our accuracy and consistency.
- Nurture and propagate a culture of quality within SGS with the full support of management and engagement of all employees.
- Develop the understanding that we will never compromise on quality.

IT IS THEREFORE OUR COMMITMENT TO

- Place our customers at the heart of everything we do.
- Actively listen to industry and customer needs and expectations and innovate in our quality statement to meet them.
- Continuously challenge ourselves to improve our quality management system by setting and reviewing our objectives, risks, KPIs, results and customer satisfaction levels.
- Develop and maintain the processes we need to deliver high quality, optimised and coherent services.
- Continuously measure, maintain and increase SGS' knowledge base through a sustainable processes of talent recruitment and training.
- Respect client confidentiality and individual privacy whilst remaining transparent in all other aspects of our work.
- Protect SGS' intellectual property and know-how.
- Embody the SGS brand and its independence in all that we do.

Delivering quality and professionalism is an individual responsibility for all of us, at every level within our organisation.
These commitments apply to all SGS employees and contractors.
Management is responsible for ensuring full compliance with SGS policies.

FRANKIE NG
Chief Executive Officer

11 January 2016

This version cancels and replaces all previous Quality policy statements.

The English version of this document constitutes the binding version.

WHEN YOU NEED TO BE SURE

The following is implied in this policy:

- Commitment to comply with the latest requirements of The NELAC Institute, ISO 17025, and the Department of Defense Quality System Manual
- Commitment to continually improve the effectiveness of the Quality Management System
- Commitment to good professional practices
- Commitment to the quality of our services
- Commitment that testing will be carried out to stated methods and client requirement
- All personnel must familiarize themselves with the Quality Policy, Quality System Manual and implement all policies and procedures related to their jobs.

Management must ensure that this quality policy is communicated and understood with SGS North America Inc. and reviewed for continued suitability.

2.0 ORGANIZATION

2.1 ***Organizational Entity***. SGS - Dayton is the New Jersey division of SGS North America Inc., which is part of the multi-national SGS S.A., based in Geneva, Switzerland. The facility is located in Dayton, New Jersey where it has conducted business since 1987. Satellite laboratories are maintained in Marlborough, Massachusetts; Orlando, Florida; Houston, Texas; Wheat Ridge, Colorado; and Scott, Louisiana.

2.2 ***Management Responsibilities***

Requirement: Each laboratory facility has an established chain of command. The duties and responsibilities of the management staff are linked to the Operations Council and the Chief Executive Officer of SGS S.A. who establishes the agenda for all company activities.

Managing Director. Oversees all business operations for the SGS network in North America. Reports to the Chief Operating Officer for SGS North America Inc.

Vice President EHS. Primary responsibility for all operations and business activities. Delegates authority to laboratory directors, general managers, and the quality assurance director to conduct day to day operations and execute quality assurance duties. Reports to the Managing Director of North America.

Laboratory Director. Executes day to day responsibility for laboratory operations including technical aspects of production activities and associated logistical procedures. Reports directly to the VP EHS.

Quality Assurance Director. Design, oversight, and facilitation responsibility for all quality system elements identified in the quality program. Reports directly to the VP EHS.

Technical Directors (Organics/Inorganic). Responsible for day to day operations and activities of the organics and inorganics laboratories including scheduling, production and data quality. Report directly to the Laboratory Director.

Quality Assurance Manager. Responsible for ensuring that the management system related to Quality is implemented and followed at all times. Reports directly to the QA Director.

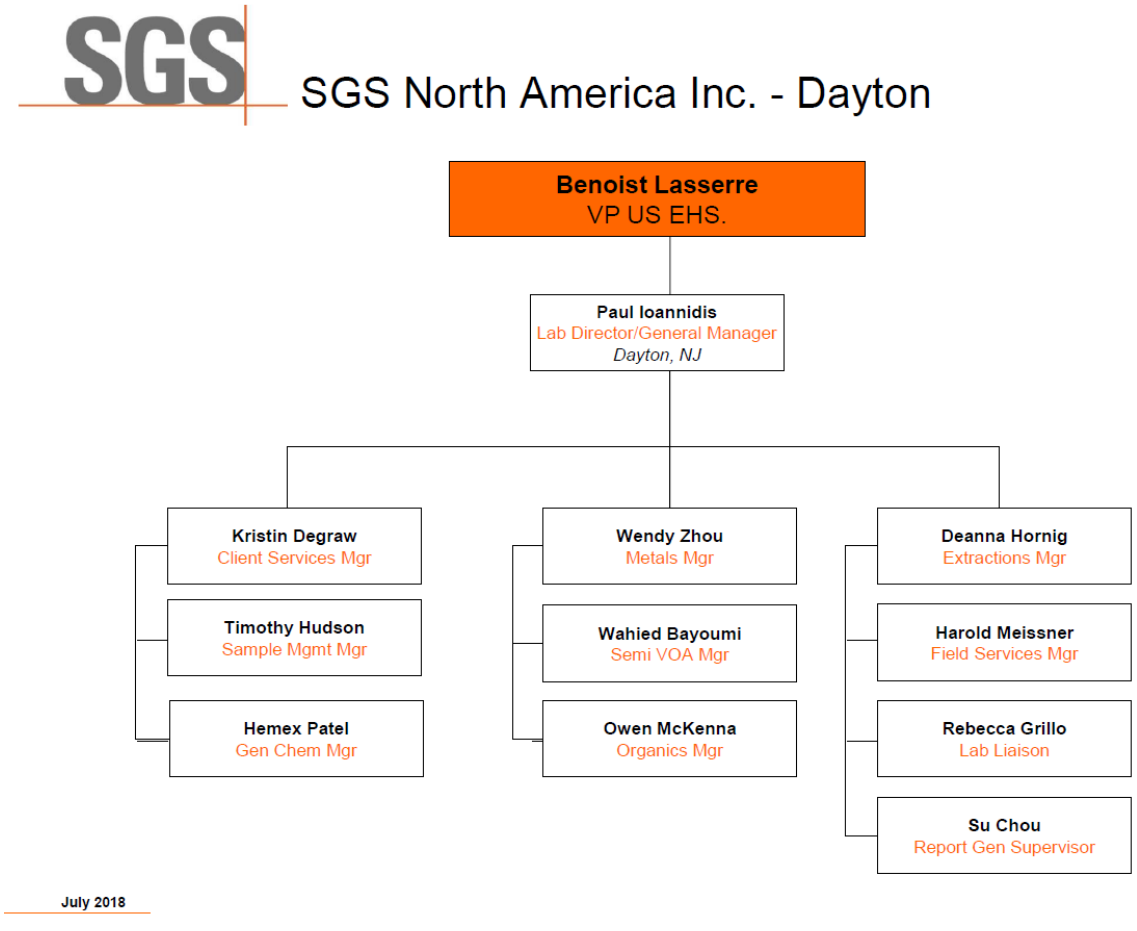
Department Managers. Execute day to day responsibility for specific laboratory areas including technical aspects of production activities and associated logistical procedures. Report directly to the Laboratory Director.

Section Supervisors. Execute day to day responsibility for specific laboratory units including technical aspects of production activities and associated logistical procedures. Report directly to the respective Department Manager.

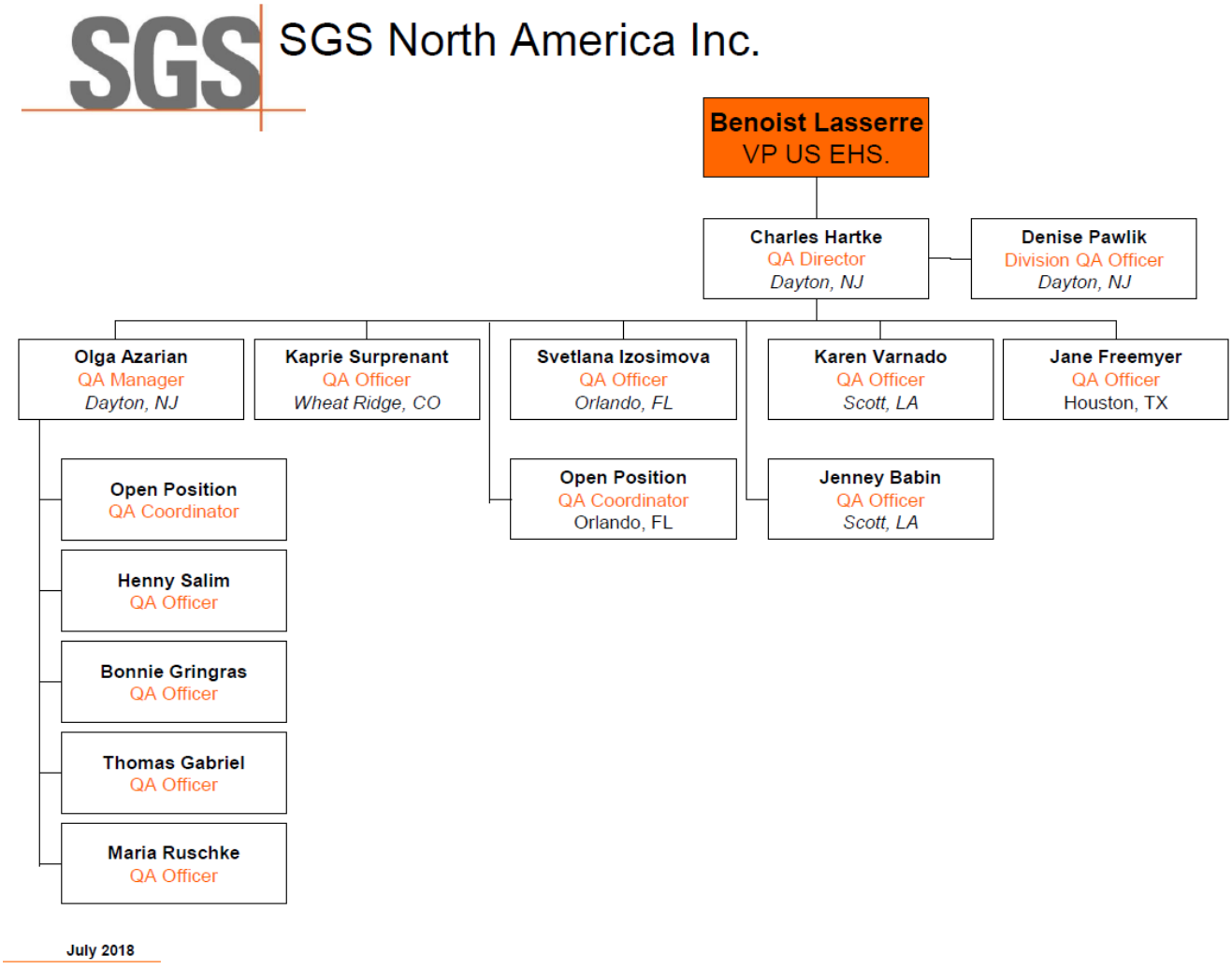
2.3 ***Organization Chart***

The hierarchy of the Company's operational control and oversight is illustrated in the SGS Organization Chart. Appointed deputies are listed in Form QA073. In the event that the technical director or quality assurance manager are absent from their respective position for a period of time exceeding fifteen (15) consecutive calendar days. If this absence exceeds thirty-five (35) consecutive calendar days, the laboratory shall notify the New Jersey Department of Environmental Protection (NJDEP)-Office of Quality Assurance and the Department of Defense Environmental Laboratory Accreditation Program (DOD ELAP) accrediting body (ANAB) in writing.

Dayton Laboratory Management Team



SGS EHS Quality Assurance Team



3.0 QUALITY RESPONSIBILITIES OF THE MANAGEMENT TEAM

3.1 ***Requirement***: Each member of the management team has a defined responsibility for the Quality System. System implementation and operation is designated as an operational management responsibility. System design and implementation is designated as a Quality Assurance Responsibility.

Vice President EHS. Primarily responsible for process improvements to all business aspects of the company.

Laboratory Director. Responsible for implementing and operating the Quality System in all laboratory areas. Responsible for the design and implementation of corrective action for defective processes. Has the authority to delegate Quality System implementation responsibilities.

Quality Assurance Director. Responsible for design, implementation support, training, and monitoring of the quality system. Identifies product, process, or operational defects using statistical monitoring tools and processes audits for elimination via corrective action. Empowered with the authority to halt production if quality issues warrant immediate action. Monitors implemented corrective actions for compliance.

Technical Directors. Responsible for overseeing the technical aspects of the quality assurance system as they are integrated into method applications and employed to assess analytical control on a daily basis. The Technical Directors review and acknowledge the technical feasibility of proposed quality assurance systems involving technical applications of applied methodology.

Department Managers. Responsible for applying the requirements of the Quality System in their section and assuring subordinate supervisors and staff apply all system requirements. Initiates, designs, documents, and implements corrective action for quality deficiencies.

Section Supervisors & Team Leaders. Responsible for applying the requirements of the Quality System to their operation and assuring the staff applies all system requirements. Initiates, designs, documents, and implements corrective action for quality deficiencies.

Quality Assurance Manager. Responsible for management of the Quality department and oversight of all Quality Assurance and Quality Control aspects at the Dayton location. Evaluates data objectively and performs assessments without outside influences. Empowered with the authority to halt production if quality issues warrant immediate action. Monitors implemented corrective actions for compliance. Serves as the primary backup in the absence of the Quality Assurance Director.

Quality Assurance Officers. Responsible for design support, implementation support, training, and monitoring support for the quality system. Conducts audits and product reviews

to identify product, process, or operational defects using statistical monitoring tools. Provides support for implemented corrective actions for compliance.

Bench Analysts. Responsible for applying the requirements of the Quality System to the analyses they perform, evaluating QC data and initiating corrective action for quality control deficiencies within their control. Implements global corrective action as directed by superiors.

3.2 ***Data Integrity Policy***. The SGS's Data Integrity Policy reflects a comprehensive, systematic approach for assuring that data produced by the laboratory accurately reflects the outcome of the tests performed on field samples and has been produced in a bias free environment by ethical professionals. The policy includes a commitment to technical ethics, staff training in ethics and data integrity, an individual attestation to data integrity and procedures for evaluating data integrity. Senior management assumes the responsibility for assuring compliance with all technical ethics elements and operation of all data integrity procedures. The staff is responsible for compliance with the ethical code of conduct and for practicing data integrity procedures.

The SGS Data Integrity Policy is as follows:

"SGS is committed to producing data that meets the data integrity requirements of the environmental regulatory community. This commitment is demonstrated through the application of a comprehensive data integrity program that includes ethics and data integrity training, data integrity evaluation procedures, staff participation and management oversight. Adherence to the specifications of the program assures that data provided to our clients is of the highest possible integrity and can be used for decision making processes with high confidence."

Data Integrity Responsibilities

Management. Senior management retains oversight responsibility for the data integrity program and retains ultimate responsibility for execution of the data integrity program elements. Senior management is responsible for providing the resources required to conduct ethics training and operate data integrity evaluation procedures. They also include responsibility for creating an environment of trust among the staff and being the lead advocate for promoting the data integrity policy and the importance of technical ethics. The QA Director is the designated ethics officer for the Laboratory. Additionally, SGS Group has an Integrity Hotline (ph: +1 888 475 6847 or compliance@sgs.com) accessible 24/7 which staff and clients may use to contact SGS's Chief Compliance Officer in Geneva.

Staff. The staff is responsible for adhering to the company ethics policy as they perform their duties and responsibilities associated with sample analysis and reporting. By executing this responsibility, data produced by SGS retains its high integrity characteristics and withstands the rigors of all data integrity checks.

The staff is also responsible for adhering to all laboratory requirements pertaining to manual data edits, data transcription and data traceability. These include the application of approved manual peak integration and documentation procedures. It also includes establishing traceability for all manual results calculations and data edits.

Ethics Statement. The SGS ethics statement reflects the standards that are expected for businesses that provide environmental services to regulated entities and regulatory agencies on a commercial basis. The Ethics Statement is comprised of key elements that are essential to organizations that perform chemical analysis for a fee. As such, it focuses on elements related to personal, technical and business activities.

SGS provides analytical chemistry services on environmental matters to the regulated community. The data the company produces provides the foundation for determining the risk presented by a chemical pollutant to human health and the environment. The environmental industry is dependent upon the accurate portrayal of environmental chemistry data. This process is reliant upon a high level of scientific and personal ethics.

It is essential to the Company that each employee understands the ethical and quality standards required to work in this industry. Accordingly, SGS has adopted a code of ethics, which each employee is expected to adhere to as follows:

- Perform chemical and microbiological analysis using acceptable scientific practices and principles.
- Perform tasks in an honest, principled and incorruptible manner inspiring peers & subordinates.
- Maintain professional integrity as an individual.
- Provide services in a confidential, honest, and forthright manner.
- Produce results that are accurate and defensible.
- Report data without any consideration of self-interest.
- Comply with all pertinent laws and regulations associated with assigned tasks and responsibilities.

Data Integrity Procedures. Four key elements comprise the SGS data integrity system. Procedures have been implemented for conducting data integrity training and for documenting that employees conform to the SGS Data Integrity and Ethics policy.

The data integrity program consists of routine data integrity evaluation and documentation procedures to periodically monitor and document data integrity. These procedures are documented as SOPs. SOPs are approved and reviewed annually following the procedures employed for all SGS SOPs. Documentation associated with data integrity evaluations is maintained on file and is available for review.

Data Integrity Training. SGS employees receive technical ethics training during new employee orientation. Employees are also required to refresh their ethical conduct agreement annually, which verifies their understanding of SGS ethics policy and their ethical responsibilities. A brochure summarizing the details of the SGS Data Integrity Policy is distributed to all employees with the Ethical Conduct Agreement. The refreshed agreement is appended to each individual's training file.

The training focuses on the reasons for technical ethics training, explains the impact of data fraud on human health and the environment, and illustrates the consequences of criminal fraud on businesses and individual careers. SGS ethics policy and code of ethics are reviewed and explained for each new employee.

Training on data integrity procedures are conducted by individual departments for groups involved in data operations. These include procedures for manual chromatographic peak integration, traceability for manual calculations and data transcription.

Data Integrity Training Documentation. Records of all data integrity training are maintained in individual training folders. Attendance at all training sessions is documented and maintained in the training archive.

SGS Data Integrity and Ethical Conduct Agreement. All employees are required to sign a Data Integrity and Ethical Conduct Agreement annually. This document is archived in individual training files, which are retained for duration of employment.

The Data Integrity and Ethical Conduct Agreement are as follows**:**

I. I understand the high ethical standards required of me with regard to the duties I perform and the data I report in connection with my employment at SGS.

II. I have received formal instruction on the code of ethics that has been adapted by SGS during my orientation and agree to comply with these requirements.

III. I have received formal instruction on the elements of SGS Data Integrity Policy and have been informed of the following specific procedures:

a. Formal procedures for the confidential reporting of data integrity issues are available, which can be used by any employee,

b. *A data integrity investigation is conducted when data issues are identified that may negatively impact data integrity.*

c. *Routine data integrity monitoring is conducted on sample data, which may include an evaluation of the data I produce,*

IV. *I have read the brochure detailing SGS Data Integrity and Ethics Program as required.*

V. *I am aware that data fraud is a punishable crime that may include fines and/or imprisonment upon conviction.*

VI. *I also agree to the following:*

a. *I shall not intentionally report data values, which are not the actual values observed or measured.*

b. *I shall not intentionally modify data values unless the modification can be technically justified through a measurable analytical process.*

c. *I shall not intentionally report dates and times of data analysis that are not the true and actual times the data analysis was conducted.*

d. *I shall not condone any accidental or intentional reporting of inauthentic data by other employees and immediately report its occurrence to my superiors.*

e. *I shall immediately report any accidental reporting of inauthentic data by myself to my superiors.*

Data Integrity Monitoring. Documented procedures are employed for performing data integrity monitoring. These include regular data review procedures by supervisory and management staff (Section 12.7), supervisory review and approval of manual integrations and periodic reviews of GALP audit trails from the LIMS and all computer controlled analysis.

Data Review. All data produced by the laboratory undergoes at least two levels of review the final review must be performed by a manager, supervisor or designated reviewer. Detected data anomalies that appear to be related to data integrity issues are isolated for further investigation. The investigation is conducted following the procedures described in this section.

Manual Peak Integration Review and Approval. Routine data review procedures for all chromatographic processes includes a review of all manual chromatographic peak integrations. This review is performed by the management staff and consists of a review of the machine integration compared to the manual integration. Manual integrations, which have been performed in accordance with SGS manual peak integration procedures, are approved for further processing and release. Identification of samples and analytes in which manual

integration had been necessary may be recorded in a report case narrative specific to a particular client and project requirement.

Manual integrations which are not performed to SGS specifications are set aside for corrective action, which may include analyst retraining or further investigation as necessary.

Data Integrity Review. Data integrity audits are comprehensive data package audits that include a review of raw data, process logbooks, processed data reports and GALP audit trails from individual instruments and LIMS. GALP audit trails, which record all electronic data activities, are available for the majority of computerized methodology and the laboratory information management system (LIMS). These audit trails are periodically reviewed to determine if interventions performed by technical staff constitute an appropriate action. The review is performed on a recently completed job and may include interviews with the staff who performed the analysis. Findings indicative of inappropriate interventions or data integrity issues are investigated to determine the cause and the extent of the anomaly.

Confidential Reporting of Data Integrity Issues. Data integrity concerns may be raised by any individual to their supervisor. Employees with data integrity concerns should always discuss those concerns with their immediate supervisors as a first step unless the employee is concerned with the confidentiality of disclosing data integrity issues or is uncomfortable discussing the issue with their immediate supervisors. The supervisor makes an initial assessment of the situation to determine if the concern is related to a data integrity violation. Those issues that appear to be violations are documented by the supervisor and referred to the QA Director for investigation.

Documented procedures for the confidential reporting of data integrity issues in the laboratory are part of the data integrity policy. These procedures assure that laboratory staff can privately discuss ethical issues or report items of ethical concern without fears of repercussions with senior staff.

Employees with data integrity concerns that they consider to be confidential are directed to the Corporate Human Resources Manager in Dayton, New Jersey. The HR Manager acts as a conduit to arrange a private discussion between the employee and the Corporate QA Director or a local QA Officer.

During the employee - QA discussion, the QA representative evaluates the situation presented by the employee to determine if the issue is a data integrity concern or a legitimate practice. If the practice is legitimate, the QA representative clarifies the process for the employee to assure understanding. If the situation appears to be a data integrity concern, the QA representative initiates a Data Integrity Investigation following the procedures specified in SOP EQA059.

Data Integrity Investigations. Follow-up investigations are conducted for all reported instances of ethical concern related to data integrity. Investigations are performed in a confidential manner by senior management according to a documented procedure. The

outcome of the investigation is documented and reported to the company Vice President EHS who has the ultimate responsibility for determining the final course of action in the matter. Investigation documentation includes corrective action records, client notification information and disciplinary action outcomes, which is archived for a period of five years.

The investigations are conducted by the senior staff and supervisory personnel from the affected area. The investigations team includes the Laboratory Director and the QA Director. Investigations are conducted in a confidential manner until it is completed and resolved.

The investigation includes a review of the primary information in question by the investigations team. The team performs a review of associated data and similar historical data to determine if patterns exist. Interviews are conducted with key staff to determine the reasons for the observed practices.

Following data compilation, the investigations team reviews all information to formulate a consensus conclusion. The investigation results are documented along with the recommended course of action.

Corrective Action, Client Notification & Discipline. Investigations that reveal systematic data integrity issues will be referred for corrective action, resolution and disposition (Section 13). If the investigation indicates that an impact to data has occurred and the defective data has been released to clients, notification procedures will be initiated following the steps in Section 13.2.

In all cases of data integrity violations, some level of disciplinary action will be conducted on the responsible individual. The level of discipline will be consistent with the violation and may range from retraining and/or verbal reprimand to termination. A zero tolerance policy is in effect for unethical actions.

4.0 JOB DESCRIPTIONS OF KEY STAFF

4.1 ***Requirement***: Descriptions of key positions within the organization are defined to ensure that clients and staff understand duties and the responsibilities of the management staff and the reporting relationships between positions.

Vice President EHS. Responsible for overall process improvement for all business processes. Is also responsible for Quality Assurance, IT Development and Health and Safety. Reports directly to the Managing Director for SGS US operations.

Laboratory Director (also Inorganics Technical Director). Reports to the Vice President EHS. Establishes laboratory operations strategy. Direct supervision of client services, organic chemistry, inorganic chemistry, field services, and sample management. Maintains operational responsibility for the designated regional laboratories as defined in the SGS Organization Chart.

Director, Quality Assurance. Reports to the company Vice President EHS and functions independently from laboratory operations. Establishes the company quality agenda, develops quality procedures, provides assistance to operations on quality procedure implementation, coordinates all quality control activities, monitors the quality system, and provides quality system feedback to management to be used for process improvement.

Manager, Quality Assurance. Reports to the QA Director. Manages quality assurance and quality control functions. Conducts internal audits and prepares reports for management review. Oversees proficiency testing program. Responsible for quality oversight at the Dayton location.

Manager, Client Services. Reports to the Laboratory Director. Establishes and maintains communications between clients and the laboratory pertaining to client requirements which are related to sample analysis and data deliverables. Initiates client orders and supervises sample login operations.

Manager, Volatiles (Organics Technical Director). Reports to the Laboratory Director. Directs the operations of the organics group, consisting of organics preparation and instrumental analysis. Establishes daily work schedule. Supervises method implementation, application, and data production. Responsible for following Quality System requirements. Maintains laboratory instrumentation in an operable condition.

Manager, Semi VOA. Reports to the Lab Director. Expedites the analysis of samples and sample extracts. Executes daily analysis schedule. Supervises the analysis of samples for organic parameters using valid, documented methodology. Documents all data and data production activities. Maintains instrumentation in an operable condition. Reviews data for compliance to quality and methodological requirements.

Manager, General Chemistry. Reports to the Lab Director. Executes daily analysis schedule. Supervises the analysis of samples for wet chemistry parameters using valid, documented methodology. Maintains instrumentation in an operable condition. Reviews data for compliance to quality and methodological requirements.

Manager, Metals. Reports to the Lab Director. Executes daily analysis schedule. Supervises the analysis of samples for metallic elements using valid, documented methodology. Documents all procedures and data production activities. Maintains instrumentation in an operable condition. Reviews data for compliance to quality and methodological requirements.

Manager, Organic Preparation. Reports to the Lab Director. Executes the daily sample preparation schedule. Performs the extract of multi-media samples for organic constituents using valid, documented methodology. Prepares documentation for extracted samples. Assumes custody until transfer for analysis.

Manager, Field Services. Reports to the Laboratory Director. Conducts field sampling and analysis of "analyze immediately" parameters in support of ongoing field projects. Responsible for proper collection, preservation, documentation and shipment of field samples. Maintains field sampling and field instrumentation required to perform primary responsibilities.

Manager, Sample Management. Reports to the Laboratory Director. Develops, maintains and executes all procedures required for receipt of samples, verification of preservation, and chain of custody documentation. Responsible for maintaining and documenting secure storage, delivery of samples to laboratory units on request and courier services.

Manager, Health, Safety & Environment. Reports to the Vice President EHS. Responsible for developing company safety program and chemical hygiene plan. Reviews and updates these plans annually. Responsible for employee training on relevant health and safety topics. Documents employee training. Manages laboratory waste management program.

Technical Support Supervisor, Organics. Reports to the Volatiles Manager. Oversees instrument maintenance and new equipment installation. Conducts method development and implementation tasks.

Supervisor, Report Generation. Reports to the Lab Director. Compiles raw and processed sample data and assembles into client-ready reports. Initiates report scanning for archiving purposes. Maintains raw batch data in accessible storage. Mails completed reports to clients according to specified report turnaround schedule.

Quality Assurance Officers. Report to the Quality Assurance Manager. Perform quality control data review for trend monitoring purposes. Conduct internal audits and prepare reports for management review. Oversee proficiency testing program. Process quality control data for statistical purposes.

4.2 ***Employee Screening, Orientation, and Training***.

All potential laboratory employees are screened and interviewed by human resources and technical staff prior to their hire. The pre-screen process includes a review of their qualifications including education, training and work experience to verify that they have adequate skills to perform the tasks of the job.

Newly hired employees receive orientation training beginning the first day of employment by the Company. Orientation training consists of initial health and safety training including general laboratory safety, personal protection and building evacuation. Orientation also includes quality assurance program training, data integrity training, and an overview of the Company's goals, objectives, mission, and vision.

All technical staff receives training to develop and demonstrate proficiency for the methods they perform. New analysts work under supervision until the supervisory staff is satisfied that a thorough understanding of the method is apparent and method proficiency has been demonstrated, through a precision and accuracy study that has been documented, reviewed and approved by the QA Staff. Data from the study is compared to method acceptance limits. If the data is unacceptable, additional training is required. The analyst may also demonstrate proficiency by producing acceptable data through the analysis of an independently prepared proficiency sample.

Individual proficiency is demonstrated annually for each method performed. Data from initial and continuing proficiency demonstrations are archived in the individual's training folder.

4.3 ***Training Documentation***. The human resources department prepares a training file for every new employee. All information related to qualifications, experience, external training courses, and education are placed into the file. Verification documentation for orientation, health & safety, quality assurance, and ethics training is also included in the file.

Additional training documentation is added to the file as it is developed. This includes documentation of SOP understanding, data for initial and continuing demonstrations of proficiency, performance evaluation study data and notes and attendance lists from group training sessions.

The Quality Assurance Department maintains the employee training database. This database is a comprehensive inventory of training documentation for each individual employee. The database enables supervisors to obtain current status information on training data for individual employees on a job specific basis. It also enables the management staff to identify training documentation in need of completion.

Employee specific database records are created by human resources on the date of hire. Data base fields for job specific requirements such as SOP documentation of understanding and annual demonstration of analytical capability are automatically generated when the supervisor

assigns a job responsibility. Employees acknowledge that their SOP responsibilities have been satisfied using a secure electronic process which updates the database record. Reports are produced which summarize the qualifications of individual employees or departments.

5.0 SIGNATORY APPROVALS

Requirement: Procedures have been developed for establishing the traceability of data and documents. The procedure consists of a signature hierarchy, indicating levels of authorization for signature approvals of data and information within the organization. Signature authority is granted for approval of specific actions based on positional hierarchy within the organization and knowledge of the operation that requires signature approval. SOP EQA032 Signature Authority explains the process of SGS Signature Authority and the use of electronic signatures in the laboratory. A log of signatures and initials of all employees is maintained by the QA Staff for cross-referencing purposes.

5.1 *Signature Hierarchy*.

Vice President EHS. Approval of quality assurance policy in lieu of the Director, Quality Assurance.

Laboratory Director. Approval of final reports. Approval of SOPs, project specific QAPs, data review and approval in lieu of technical managers. Establishes and implements technical policy.

Director, Quality Assurance. Approval of quality assurance policy in the absence of the Vice President EHS. Approval of SOPs, project specific QAPs, data review and approval in lieu of technical managers.

Manager, Client Services. QAP and sampling and analysis plan approval. Project specific contracts, pricing, and price modification agreements. Approval and acceptance of incoming work, Client Services policy.

Managers, Technical Departments. Methodology and department specific QAPs. Data review and approval, department specific supplies purchase. Technical approval of SOPs.

Manager, Sample Management. Initiation of laboratory sample custody and acceptance of all samples. Approval of department policies and procedures. Department specific supplies purchase.

Manager, Health, Safety & Environment. Approval of health and safety policy in the absence of the Vice President EHS. Approval of health and safety SOPs. Waste manifesting and approval.

Assistant Managers: Technical Departments. Data review approval, purchasing of expendable supplies.

Supervisor, Field Services. Sampling plan design and approval. Data review for field parameters. State form certification. Department policies and procedures. Department specific supplies purchase.

Supervisors, Technical Departments. Data review approval, purchasing of expendable supplies.

5.2 ***Signature Requirements***. All laboratory activities related to sample custody and generation or release of data must be approved using either initials, signatures or electronic, password protected procedures. The individual, who applies his signature initial or password to an activity or document, is authorized to do so within the limits assigned to them by their supervisor. All written signatures and initials must be applied in a readable format that can be cross-referenced to the signatures and initials log if necessary.

5.3 ***Signature and Initials Log***. The QA group maintains a signature and initials log. New employee signatures and initials are appended to the log on the first day of employment. Signature of individuals no longer employed by the company are retained, but annotated with their date of termination.

5.4 ***Electronic Signature Log.*** Key technical staff will sign a liability document for their signatures designating the use of their electronic signatures on an annual basis. Quality Assurance team keeps a wet copy of these signatures on form QA115.

6.0 DOCUMENTATION & DOCUMENT CONTROL

Requirement: Document control policies have been established which specify that any document used as an information source or for recording analytical or quality control information must be managed using defined document control procedures. Accordingly, policies and procedures required for the control, protection, and storage of any information related to the production of analytical data and the operation of the quality system to assure its integrity and traceability have been established and implemented in the laboratory. The system contains sufficient controls for managing, archiving and reconstructing all process steps which contributed to the generation of an analytical test result. Using this system, an audit trail for reported data can be produced, establishing complete traceability for the result.

6.1 ***Administrative Records***. Administrative (non-analytical) records are managed by the quality assurance department. These records consist of electronic documents which are retained in a limited access electronic directory or paper documents, which are released to the technical staff upon specific request.

Form Generation, Modification & Control. The quality assurance group approves and manages all forms used as either stand-alone documents or in logbooks to ensure their traceability. Forms are generated as computer files only and are maintained in a limited access master directory. The QA staff also manages and approves modifications to existing forms. Obsolete editions of modified forms are retained for seven years.

Approved forms are assigned a 5-character alphanumeric code. The first two alpha characters designate the department that uses the form; the next three digits are sequentially assigned number.

New forms must include the name SGS and appropriate spaces for signatures of approval and dates. Further design specifications are the responsibility of the originating department.

The technical staff is required to complete all forms to the maximum extent possible. If information for a specific item is unavailable, the analyst is required to "Z" the information block. The staff is also required to "Z" the uncompleted portions of a logbook or logbook form if the day's analysis does not fill the entire page of the form.

Logbook Control. All laboratory logbooks are controlled documents that are comprised of approved forms used to document specific processes. New logs are numbered and issued to a specific individual who is assigned responsibility for the log. Old logs are returned to QA for entry into the document archive system where they are retained for seven (7) years. Laboratory staff may hold a maximum of two consecutively dated logbooks of the same type in the laboratory including the most recently issued book to simplify review of recently completed analysis. The Organic prep department maintains multiple active copies of prep logbooks to facilitate production.

Controlled Documents. Key laboratory documents that are distributed internally and externally are numbered for tracking purposes. Individuals receiving documents, who must be informed when changes occur, receive controlled copies of those documents. Controlled status simplifies document updates and retrieval of outdated documents. Control is maintained through a document numbering procedure and document control logbook which identifies the individual receiving the controlled document and the date of receipt. Key documents are also distributed as uncontrolled documents if the recipient does not require updated copies when changes occur. Key documents in uncontrolled status are numbered and tracked using the same procedures as controlled documents.

Quality Systems Manual (QSM). All QSMs are assigned a number prior to distribution. The number, date of distribution, and identity of the individual receiving the document are recorded in the document control logbook. The numbering system is restarted with each new volume, which corresponds to the annual revision of the QSM. Electronic versions are distributed as PDF files.

Standard Operating Procedures (SOPs). SOPs are maintained by pre-designating the numbers of official copies of documents that are placed into circulation within the laboratory. Official documents are copied to green paper and placed into the appropriate laboratory section as follows:

Administrative: One master copy for the administrative file.

Sample Management: One controlled green copy for the sample management file.

Organics Laboratories: Two controlled green copies, one for the affected laboratory area, and one for the organics laboratory file.

Inorganics Laboratories: Two controlled green copies, one for the affected laboratory area, and one for the inorganics laboratory file.

Field Services: One controlled green copy for each field sampling team (generally a single field technician).

The original, signed copy of the SOP is maintained in the master SOP binder by the QA staff. The QA staff collects outdated versions of SOPs as they are replaced and archived for a period of seven (7) years in the QA archives. Electronic versions of outdated SOPs are moved from the active SOP directory to the inactive directory.

6.2 ***Technical Records***. All records related to the analysis of samples and the production of an analytical result are archived in secure document storage or on electronic media and contain sufficient detail to produce an audit trail which re-creates the analytical result. These records include information related to the original client request, bottle order, sample login and custody, storage, sample preparation, analysis, data review and data reporting.

Each department involved in this process maintains controlled documents which enable them to maintain records of critical information relevant to their department's process.

6.3 ***Quality Control Support Data & Records***. All information and data related to the quality system is stored in a restricted access directory on the network server. Information on this directory is backed-up daily. Users of the quality assurance information and data have "read-only" access to the files contained in the directory. The QA staff and the laboratory director have write capability in this directory.

This directory contains all current and archived quality system manuals, SOPs, control limits, MDL studies, precision and accuracy data, official forms, internal audit reports, proficiency test scores and metrics calibration information.

The following information is retained in the directory:

Quality System Manuals
Standard Operating Procedures
ASTM & NIST Methods
Bottleware & Preservative QC Data
Certification Documentation
Change Management Data
External Audit Reports
Internal Audit Reports
Corrective Action Database
Laboratory Forms Directory
Health & Safety Manuals
Inactive Standard Operating Procedures
Method Detection Limit Data
Metrics Inventory & Calibration Data
Performance Limits
Proficiency Test Scores & Statistics
Project Specific Analytical Requirements
QC Report Reviews
Regulatory Agency Quality Documents
Staff Bios And Job Descriptions
State Specific Methods

6.4 ***Analytical Records***. All data related to the analysis of field samples are retained as either paper or electronic records that can be retrieved to compile a traceable audit trail for any reported result. All information is linked to the client job and sample number, which serves as a reference for all sample related information tracking.

Critical times in the life of the sample from collection through analysis to disposal are documented. This includes date and time of collection, receipt by the laboratory, preparation times and dates, analysis times and dates and data reporting information. Analysis times are calculated in hours and minutes.

Sample preparation information is recorded in a separate controlled logbook. It includes sample identification numbers, types of analysis, preparation and cleanup methods, sample weights and volumes, reagent lot numbers and volumes and any other information pertinent to the preparation procedure.

Information related to the identification of the instrument used for analysis is permanently attached to the electronic record. The record includes an electronic data file that indicates all instrument conditions employed for the analysis, including the type of analysis conducted. The analyst's identification is electronically attached to the record. The instrument tuning and calibration data is electronically linked to the sample or linked though paper logs which were used in the documentation of the analysis. Quality control and performance criteria are permanently linked to the paper archive or electronic file.
Paper records for the identity, receipt, preparation and evaluation of all standards and reagents used in the analysis are documented in prepared records and maintained in controlled documents or files. Lot number information linking these materials to the analysis performed is recorded in the logbooks associated with the samples in which they were used.

Manual calculations or peak integrations that were performed during the data review are retained as paper or scanned documents and included as part of the electronic archive. Signatures for data review are retained on paper or as scanned versions of the paper record for the permanent electronic file.

6.5 ***Confidential Business Information (CBI).*** Operational documents including SOPs, Quality Manuals, personnel information, internal operations statistics, and laboratory audit reports are considered confidential business information. Strict controls are placed on the release of this information to outside parties.

Release of CBI to outside parties or organizations may be authorized upon execution of a confidentiality agreement between SGS and the receiving organization or individual. CBI information release is authorized for third party auditors and commercial clients in electronic mode as Adobe Acrobat PDF format only.

6.6 ***Software Change Documentation & Control.*** Changes to software are documented as text within the code of the program undergoing change. Documentation includes a description of the change, reason for change and the date the change was placed into effect. Documentation indicating the adequacy of the change is prepared following the evaluation by the user who requested the change.

6.7 ***Report and Data Archiving***. SGS produces digital files of all raw and processed data which is maintained for a minimum period of seven (7) years. The archived files consist of all raw data files and source documents associated with the analysis of field samples and proficiency test samples. Data files and source documents associated with method calibration and project and method quality control are also archived. After seven years, the files may be discarded unless contractual arrangements exist which dictate different requirements. Client or regulatory agency specific data retention practices are employed for several government organizations such as the Department of Defense and the Massachusetts Department of Environmental Protection that require a retention period of ten (10) years. Data archiving may also be extended up to ten (10) years for specific commercial clients in response to contractual requirements.

Complete date and time stamped PDF reports are generated automatically from the laboratory information management system (LIMS) using the source documents archived on the document server. These source documents are maintained on a document server and archived to primary and clone tapes. The primary tapes remain on premises while the clone tapes are taken to a secure offsite location for permanent storage. Both the primary and clone tapes remain in storage for the remainder of the archive period.

6.8 ***Training***. The company maintains a training record for all employees that documents that they have received instruction on administrative and technical tasks that are required for the job they perform. Training records for individuals employed by the company are retained for a period of six months following their termination of employment.

Training File Origination. The QA department initiates training files for each employee. QA Officers retain the responsibility for the maintenance and tracking of all training related documentation in the file. The file is begun on the first day of employment. Information required for the file includes a copy of the individual's most current resume, detailing work experience and a copy of any college diplomas and transcript(s). Information added on the first day includes documentation of health and safety training, quality assurance training and a signed data integrity training and ethical conduct agreement.

Training documentation, training requirements, analyst proficiency information and other training related support documentation is tracked using a customized database application (Section 4.3). Database extracts provide an itemized listing of specific training requirements by job function. Training status summaries for individual analysts portray dates of completion for job specific training requirements.

6.9 ***Technical Training***. The supervisor of each new employee is responsible for developing a training plan for each new employee. The supervisor evaluates the employees training progress at regular frequencies. Supporting documentation, including demonstration of capability and precision and accuracy studies, which demonstrate an analyst's proficiency for a specific test, are added to the training file as completed. Employees and supervisors verify documentation of understanding (DOU) for all assigned standard operating procedures in the training database. Certificates or diplomas for any off-site training are also added to the file.

7.0 REFERENCE STANDARD TRACEABILITY

Requirement: Documented procedures, which establish traceability between any measured value and a national reference standard, are established by the laboratory as required. All metric measurements are traceable to NIST reference weights or thermometers that are calibrated on a regular schedule. All chemicals used for calibration of a quantitative process are traceable to an NIST reference that is documented by the vendor using a certificate of traceability. The laboratory maintains a documentation system that establishes the traceability links. The procedures for verifying and documenting traceability are documented in standard operating procedures.

7.1 ***Traceability of Metric Measurements - Thermometers***. SGS uses NIST thermometers to calibrate commercially purchased thermometers prior to their use in the laboratory and annually thereafter for liquid in glass thermometers or quarterly for electronic temperature measuring devices. If necessary, thermometers are assigned correction factors that are determined during their calibration using an NIST thermometer as the standard. The correction factor is documented in a thermometer calibration database and on a tag attached to the thermometer. The correction factor is applied to temperature measurements before recording the measurement in the temperature log. Calibration of each thermometer is verified and documented on a regular schedule. The NIST thermometer is checked for accuracy by an ISO 17025 approved vendor every five (5) years following the specifications for NIST thermometer calibration verification detailed in the United States Environmental Protection Agency's "Manual for the Certification of Laboratories Analyzing Drinking Water", Fifth Edition, February2005.

7.2 ***Traceability of Metric Measurements – Calibration Weights***. SGS uses calibrated weights, which are traceable to NIST standard weights to calibrate all balances used in the laboratory. Balances are calibrated to specific tolerances within the intended use range of the balance. Calibration checks are required on each day of use. If the tolerance criteria are not achieved, corrective action specified in the balance calibration SOP is applied before the balance can be used for laboratory measurements. Recalibration of all calibration weights is conducted and documented on a biannual basis.

7.3 ***Traceability of Chemical Standards***. All chemicals, with the exception of bulk dry chemicals and acids, purchased as reference standards for use in method calibration must establish traceability to NIST referenced material through a traceability certificate. Process links are established that enable a calibration standard solution to be traced to its NIST reference certificate.

Chemical standards used for analysis must meet the purity specifications of the method. These specifications must be stated in the reagents section of the method SOP.

7.4 ***Assignment of Reagent, Bulk Chemical and Standard Expiration Dates.*** Expiration date information for all purchased standards, prepared standard solutions and selected reagents is provided to SGS by the vendor as a condition of purchase. Neat materials, bulk chemicals

including solvents, acids and inorganic reagents are not required to be purchased with expiration dates. An expiration date of five (5) years from the date of receipt shall be established. Prepared solutions are labeled with the expiration date provided by the manufacturer. In-house prepared solutions are assigned expiration dates that are consistent with the method that employs their use unless documented experience indicates that an alternate date can be applied. If alternate expiration dates are employed, their use is documented in the method SOP. Expiration dates for prepared inorganic reagents, which have not exhibited instability, are established at two years from the date of preparation for tracking purposes.

The earliest expiration date has been established as the limiting date for assigning expiration dates to prepared solutions. The assignments of expiration dates that are later than the expiration date of any derivative solution or material are prohibited.

7.5 ***Documentation of Traceability***. Traceability information is documented in individual logbooks designated for specific measurement processes. The quality assurance group maintains calibration documentation for metric references in separate logbooks.

Balance calibration verification is documented in logbooks that are assigned to each balance. The individual conducting the calibration is required to initial and date all calibration activities. Any defects that occur during calibration are also documented along with the corrective action applied and a demonstration of return to control. Annual service reports and certificates are retained on file by the QA staff.

Temperature control is documented in logbooks or an electronic temperature monitoring database assigned to the equipment being monitored. A calibrated thermometer or probe is assigned to each individual item. Uncorrected and corrected measurements are recorded. Logbooks document with the date and initials of the individual conducting the measurement on a daily or as used basis. The temperature database records temperatures automatically every 15 minutes. Corrective action, if required, is also documented including the demonstration of return to control.

Initial traceability of chemical standards is documented via a vendor-supplied certificate (not available for bulk dry chemicals and acids) that includes lot number, expiration date and certified concentration information. Solutions prepared using the vendor supplied chemical standards are documented in logbooks assigned to specific analytical processes. Alternatively, documentation may be entered into the electronic standards and reagent tracking log. The documentation includes links to the vendor's lot number, an internal lot number, and dates of preparation, expiration date, and the preparer's initials.

SGS employs commercially prepared standard solutions whose traceability can be demonstrated through a vendor supplied certificate of analysis that includes an experimental verification of the standard's true concentration. The test value for the verification analysis must agree within 1% of the vendor's true value before it can be employed for calibration

purposes. If the test value differs from the nominal value by more than 1%, then the test value is used as the true value in laboratory calibrations and calculations. Purchased standards which do not have a certificate of analysis cannot be used for calibration or calibration verification purposes and are rejected or returned to the vendor.

Supervisors conduct regular reviews of logbooks, which are verified using a signature and date.

8.0 TEST PROCEDURES, METHOD REFERENCES, AND REGULATORY PROGRAMS

Requirements: The laboratory employs client specified or regulatory agency approved methods for the analysis of environmental samples. A list of active methods is maintained, which specifies the type of analyses performed and cross-references the methods to applicable environmental regulations. Routine procedures used by the laboratory for the execution of a method are documented in standard operating procedures. Method performance and sensitivity are demonstrated annually where required. Defined procedures for the use of method sensitivity limits for data reporting purposes are established by the QA Director and used consistently for all data reporting purposes.

8.1 ***Method Selection & Application***. SGS employs methods for environmental sample analysis that are consistent with the client's application, which are appropriate and applicable to the project objectives. SGS informs the client if the method proposed is inappropriate or outdated and suggests alternative approaches.

SGS employs documented, validated regulatory methods in the absence of a client specification and informs the client of the method selected. These methods are available to the client and other parties as determined by the client. Documented and validated in-house methods may be applied if they are appropriate to the project. The client is informed of the method selection.

8.2 ***Standard Operating Procedures***. Standard operating procedures (SOP) are prepared for routine methods executed by the laboratory, processes related to laboratory operations and sample or data handling. All SOPs are formatted to meet the specifications established by the National Environmental Laboratory Accreditation Conference, which are detailed in Module 4 – Quality Systems of the established Standards. The procedures describe the process steps in sufficient detail to enable an individual, who is unfamiliar with the procedure to execute it successfully.

SOPs are evaluated annually and edited if necessary. Reviewed SOPs that do not require modification include an evaluation summary form indicating that an evaluation was conducted and modifications were not needed. SOPs can be edited on a more frequent basis if changes are required for any reason. These may include a change to the methodology, elimination of systematic errors that dictate a need for process changes or modifications to incorporate a new version of the method promulgated by the originating regulatory agency. Procedural modifications are indicted using a revision number. SOPs are available for client review at the SGS facility upon request.

The complete list of the laboratories SOPs available as of the date of publication of this QSM version are detailed in Appendix II.

8.3 ***Method Validation***. Standard methods from regulatory sources are primarily used for all analysis. Standard methods do not require validation by the laboratory. Non-standard, in-house methods are validated prior to use. Validation is also performed for standard methods applied outside their intended scope of use. Validation is dependent upon the method application and may include analysis of quality control samples to develop precision and accuracy information for the intended use. A final method validation report is generated, which includes all data in the validation study. A statement of adequacy and/or equivalency is included in the report. A copy of the report is archived in the quality assurance directory of the company server.

Non-standard methods are validated prior to use. This includes the validation of modified standard methods to demonstrate comparability with existing methods. Demonstrations and validations are performed and documented prior to incorporating technological enhancements and nonstandard methods into existing laboratory methods used for general applications. The demonstration includes method specific requirements for assuring that significant performance differences do not occur when the enhancement is incorporated into the method. Validation is dependent upon method application and may include the analysis of quality control samples to develop precision and accuracy information for intended use.

The study procedures and specifications for demonstrating validation include comparable method sensitivity, calibration response, method precision; method accuracy and field sample consistency for several classes of analytical methods are detailed in this document. These procedures and specifications may vary depending upon the method and the modification.

8.4 ***Estimated Uncertainty.*** A statement of the estimated uncertainty of an analytical measurement accompanies the test result when required. Estimated uncertainty is derived from the performance limits established for spiked samples of similar matrices. The degree of uncertainty is derived from the negative or positive bias for spiked samples accompanying a specific parameter. When the uncertainty estimate is applied to a measured value, the possible quantitative range for that specific parameter at that measured concentration is defined. Well recognized regulatory methods that specify values for the major sources of uncertainty and specify the data reporting format do not require a further estimate of uncertainty.

8.5 ***Demonstration of Capability***. Confirmation testing is conducted to demonstrate that the laboratory is capable of performing the method before its application to the analysis of environmental samples. The results of the demonstration tests are compared to the quality control specifications of the method to determine if the performance is acceptable.

Capability demonstrations are conducted initially for every analyst on each method performed and annually on a method specific basis thereafter. Acceptable demonstrations are documented for individual training files and retained by the QA staff. New analytes, which are added to the list of analytes for an accredited method, are evaluated for applicability through a demonstration of capability similar to those performed for accredited analytes.

8.6 ***Method Detection Limit Determination***. Method detection limit (MDL) studies are performed as appropriate for routine methods used in the laboratory. MDL studies are also performed when there is a change to the method that affects how the method is performed or when an instrumentation change that impacts sensitivity occurs. The procedure used for determining MDLs is described in 40 CFR, Part 136 and Appendix B. Studies are performed for each method on water, soil and air matrices for every instrument that is used to perform the method. MDLs are established at the instrument level. The quality assurance staff manages the annual MDL determination process and is responsible for retaining MDL data on file. Approved MDLs are appended to the LIMS and used for data reporting purposes.

8.7 ***Limit of Detection (LOD).*** For the DoD ELAP, the limit of detection (LOD) for each method and target analyte of concern is established for each instrument that is used to perform the method. The LOD is established by initially spiking a water and/or soil matrix at approximately two to three times the calculated MDL (for a single-analyte standard) or two to four times the calculated MDL (for a multi-analyte standard). The LOD undergoes all sample processing steps and is validated by the qualitative identification of the analytes of interest. The spike concentration establishes the LOD and must be verified quarterly. If the spike concentration in the LOD cannot be verified at the initial level with appropriate analytical quality control, a higher LOD must be defined and verified.

8.8 ***Instrument Detection Limit Determination***. Instrument detection limits (IDLs) are determined for all inductively coupled argon plasma emission spectrophotometers and mass spectrometers. The IDL is determined for the wavelength (emission) of each element and the ion (mass spectrometry) of each element used for sample analysis. The IDL data is used to estimate instrument sensitivity in the absence of the sample matrix. IDL determinations are conducted at the frequency specified in the appropriate SOPs' for ICP and ICP/MS analysis.

8.9 ***Method Reporting Limit.*** The method reporting limit for organic methods is determined by the concentration of the lowest calibration standard in the calibration curve. This value is adjusted based on several sample preparation factors including sample volume, moisture content (soils), digestion, distillation or dilution. The low calibration standard is selected by department managers as the lowest concentration standard that can be used for calibration while continuing to meet the calibration linearity criteria of the method being used. The validity of the method reporting limits are confirmed through the analysis of a spiked quality control sample at the method reporting limit concentration. By definition, detected analytes at concentrations below the low calibration standard cannot be accurately quantitated and are qualified as estimated values.

The reporting limit for inorganics methods is defined as the concentration which is greater than the MDL where method quality control criteria has been achieved. The reporting limit for general chemistry methods employing multiple point calibrations must be greater than or equal to the concentration of the lowest standard of the calibration range.

The reporting limit established for both organic and inorganic analysis is above the calculated method detection limit where applicable.

8.10 ***Limit of Quantitation (LOQ).*** For the DoD ELAP the limit of quantitation (LOQ) for each analyte of concern is determined. The LOQ is set within the range of calibration is greater than the established LOD. Precision and bias criteria for the LOQ are established to meet client requirements and are verified quarterly.

8.11 ***Reporting of Quantitative Data.*** Analytical data for all methods is reported without qualification to the reporting limit established for each method. Data, for organic methods may be reported to the established method detection limit depending upon the client's requirements provided that all qualitative identification criteria for the detected parameter have been satisfied. All parameters reported at concentrations between the reporting limit and the method detection limit are qualified as estimated.

Data for inorganic methods are reported to the established method reporting limits. Inorganic data for specific methods may also be reported to the established method detection limit at client request. However, this data is always qualified as estimated.

Measured concentrations of detected analytes that exceed the upper limit of the calibration range are either diluted into the range and reanalyzed or qualified as an estimated value. The only exception to this applies to ICP and ICP/MS analysis, which can be reported to the upper limit of the experimentally determined linear range without qualification.

8.12 ***Precision and Accuracy Studies***. Annual precision and accuracy (P&A) studies, which demonstrate the laboratories ability to generate acceptable data, are performed for all routine methods used in the laboratory. The procedure used for generating organic P&A data is referenced in the majority of the regulatory methodology in use. The procedure requires quadruplicate analysis of a sample spiked with target analytes at a concentration in the working range of the method. This data may be compiled from a series of existing blank spikes or laboratory control samples. Accuracy (percent recovery) of the replicate analysis is averaged and compared to established method performance limits. Values within method limits indicate an acceptable performance demonstration. Precision and accuracy date is also used to annually demonstrate analytical capability for individual analysts. Annual demonstration of capability data is archived in individual training files.

Performance Limits. The Quality Assurance staff is responsible for compilation and maintenance of all precision and accuracy data used for performance limits. Quality control data for all test methods are accumulated and stored in the laboratory information management system (LIMS). Parameter specific QC data are extracted semi-annually for methods 8260, 8270, 8081, 8082 and annually for remaining methods. Each method is statistically processed to develop laboratory specific warning limits and control limits. The new limits are reviewed and approved by the supervisory staff prior to their use for data assessment.

The new limits are used to evaluate QC data for compliance with method requirements for a period of one year. Laboratory generated limits appear on all data reports.

8.13 ***Method Sources & References.*** The Quality Assurance Staff maintains a list of active methods used for the analysis of samples. This list includes valid method references from sources such as USEPA, ASTM or Standard Methods designations and the current version and version date.

Updated versions of approved reference methodology are placed into use as changes occur. The Quality Assurance staff and/or Technical Managers inform operations management of changes in method versions as they occur. The operations management staff selects an implementation date. The operations staff is responsible for completing all method use requirements prior to the implementation date. This includes modification of SOPs, completion of MDL and precision and accuracy studies and staff training. Documentation of these activities is provided to the QA staff who retains this information on file. The updated method is placed into service on the implementation date and the old version is de-activated.

Multiple versions of selected methods may remain in use to satisfy client specific needs. In these situations, the default method version becomes the most recent version. Client specific needs are communicated to the laboratory staff using method specific analytical method codes, which clearly depict the version to be used. The old method version is maintained as an active method until the specified client no longer requires the use of the older version.

SGS will not use methodology that represents significant departures from the reference method unless specifically directed by the client. If clients direct the laboratory to use a method modification that represents a significant departure from the reference method, the request will be documented in the project file.

8.14 ***Analytical Capabilities***. Appendix III provides a detailed listing of the methodology employed for the analysis of test samples.

9.0 SAMPLING, SAMPLE MANAGEMENT, LOGIN, CUSTODY, STORAGE AND DISPOSAL

Requirement: The laboratory must employ a system which ensures that client supplied product or supplied product (the sample) is adequately evaluated, acknowledged, and secured upon delivery to the laboratory. The system also assures that product chain of custody is maintained and that sample receipt conditions and preservation status are documented and communicated to the client and internal staff. The login procedure assigns, documents, and maps the specifications for the analysis of each unique sample to assure that the requested analysis is performed on the correct sample and enables the sample to be tracked throughout the laboratory analytical cycle. The system includes procedures for reconciling defects in sample condition or client provided data, which are identified at sample arrival. The system specifies the procedures for proper sample storage, transfer to the laboratory, and disposal after analysis. The system is also documented in standard operating procedures.

9.1 ***Order Receipt and Entry***. New orders are initiated and processed by the client services group (See Chapter 14, Procedures for Executing Client Specifications). The new order procedure includes mechanisms for providing bottles to clients, which meet the size, cleanliness, and preservation specifications for the analysis to be performed.

For new orders, the project manager prepares a bottle request form, which is submitted to sample management. This form provides critical project details to the sample management staff, which are used to prepare and assemble the sample bottles for shipment to the client prior to sampling.

The bottle order is assembled using bottles that meet US EPA specifications for contaminant free sample containers. SGS uses a combination of commercially supplied pre-cleaned bottles and bottles that have been tested for residual contamination and verified to meet USEPA specifications prior to use. Sterile bottles for microbiological samples are purchased from commercial sources.

Bottles, which are not purchased pre-cleaned, are checked to assure that they are free of contamination from targeted analytes before being released for use. Sterile bottles are checked for contamination with each lot. The QA staff retains a copy of the documentation of in-house contamination and sterility checks and maintains the responsibility for approving and releasing bottle lots for use following a review of the check data.

Preservative solutions that are specified for the analysis requested are dispensed into the sample bottle prior to shipment. All preservative solutions are prepared in the laboratory or purchased from commercial suppliers. Each solution is checked to assure that it is free of contamination from the compounds being analyzed before being released for use.

Reagent water for trip and field blanks is poured into appropriately labeled containers. All bottles are packed into ice chests with blank chain of custody forms and the original bottle

order form. Completed bottle orders are delivered to clients using SGS couriers or commercial carriers for use in field sample collection.

9.2 ***Sampling***. Documented procedures are employed by the field staff for field sample collection and are accessible during sample collection activities. Field activities are documented which detail relevant field conditions, site data and the results of field measurements. Appropriate custody procedures for collected samples are initiated by the field staff at the time of sample collection. Samples are documented, labeled and preserved according to the specifications of the method and/or regulatory program prior to being shipped to the laboratory.

9.3 ***Sample Receipt and Custody***. Samples are delivered to the laboratory using a variety of mechanisms including SGS couriers, commercial shippers, and client self-delivery. Documented procedures are followed for arriving samples to assure that custody and integrity are maintained and handling/ preservation requirements are documented and maintained.

Sample custody documentation is initiated when the individual collecting the sample collects field samples. Custody documentation includes all information necessary to provide an unambiguous record of sample collection, sample identification, and sample collection chronology. Initial custody documentation employs either SGS or client generated custody forms.

SGS generates a chain of custody in situations where the individuals who collected the sample did not generate custody documentation in the field.

SGS defines sample custody as follows:

- The sample is in the actual custody or possession of the assigned responsible person,
- The sample is in a secure area.

The SGS facility is defined as a secure facility. Perimeter security has been established, which limits access to authorized individuals only. Visitors enter the facility through the building lobby and must register with the receptionist prior to entering controlled areas. While in the facility, visitors are required to wear a visitor's badge and must be accompanied by their hosts at all times. After hours, building access is controlled using a computerized passkey reader system. This system limits building access to individuals with a pre-assigned authorization status. After hours visitors are not authorized to be in the building. Clients delivering samples after hours must make advanced arrangements through client services and sample management to assure that staff is available to take delivery and maintain custody.

Upon arrival at SGS, the sample custodian reviews the chain of custody for the samples received to verify that the information on the form corresponds with the samples delivered. This includes verification that all listed samples are present and properly labeled, checks to verify that samples were transported and received at the required temperature, verification that

the sample was received in proper containers, verification that sufficient volume is available to conduct the requested analysis, and a check of individual sample containers to verify test specific preservation requirements including the absence of headspace for volatile compound analysis.

Sample conditions and other observations are documented on the chain of custody by the sample custodian prior to completing acceptance of custody and in an online database that creates a permanent record of all sample login activities. The sample custodian accepts sample custody upon verification that the custody document is correct. Discrepancies or non-compliant situations are documented and communicated to the SGS Project Manager, who contacts the client for resolution. The resolution is documented and communicated to sample management for execution.

The sample management staff maintains an electronic sample receipt log. This log details all sample-related information in a searchable database that is updated upon data entry and backed up daily. The log records include critical date information, numbers of samples, numbers of bottles for each parameter, descriptions of bottles for each parameter, preservation conditions, bottle refrigerator location, and bottle conditions. Data entry into the log is secured using individual passwords.

During initial login, each bottle is assigned a unique number and is labeled with a barcode corresponding to that number. A bar-coding and scanning system electronically tracks sample custody transfers between individuals within the laboratory. Internal custody documentation may be required for compliance with regulatory agency or contractual specifications. A documented, chronological record of each sample transfer identifying each individual having possession of the sample is created in the laboratory information management system, which can be printed and included in data reports to demonstrate continuous custody.

9.4 ***Laboratory Preservation of Improperly Preserved Field Samples.*** SGS will attempt to preserve field samples that were received without proper preservation to the extent that it is feasible and supported by the methods in use. Laboratory preservation of improperly preserved or handled field samples is routinely performed for metals samples. Special handling procedures may also be applied to improperly preserved volatile organics.

Aqueous metals samples that were not nitric acid preserved to pH 2 in the field are laboratory preserved and held for twenty (24) hours to equilibrate prior to analysis. Aqueous metals samples requiring field filtration may be filtered in the laboratory within seventy-two (72) hours of receipt provided that the sample has not been acid preserved.

Unpreserved volatile organics that include Acrolein and /or Acrylonitrile must be analyzed within three (3) days; remaining samples may be analyzed within seven (7) days to minimize degradation of volatile organics if the laboratory is notified in advance of the failure to preserve upon collection. Laboratory preservation of unpreserved aqueous samples is not possible. A pH check of volatile organic samples prior to analysis will compromise the sample by allowing volatile

organics to escape during the check. If the laboratory is not notified of the failure to field preserve an aqueous volatile organic sample, the defect will not be identified until sample analysis has been completed and the data is qualified accordingly.

9.5 ***Sample Tracking Via Status Change.*** An automated, electronic LIMS procedure records sample exchange transactions between departments and changes in analytical status. This system tracks all preparation, analytical, and data reporting procedures to which a sample is subjected while in the possession of the laboratory. Each individual receiving samples must acknowledge the change in custody and operational status in the LIMS. This step is required to maintain an accurate electronic record of sample status, dates of analytical activity, and custody throughout the laboratory.

Sample tracking is initiated at login where all chronological information related to sample collection dates and holding times are entered into the LIMS. This information is entered on an individual sample basis.

9.6 ***Sample Acceptance Policy***. Incoming samples must satisfy SGS's sample acceptance criteria before being logged into the system. Sample acceptance is based on the premise that clients have exercised proper protocols for sample collection. This includes complete documentation, sufficient volume, proper chemical preservation, temperature preservation, sample container sealing and labeling, and appropriate shipping container packing.

The sample management staff will make every attempt to preserve improperly preserved samples upon arrival. However, if preservation is not possible, the samples may be refused unless the client authorizes analysis. No samples will be accepted if holding times have been exceeded or will be exceeded before analysis can take place unless the client authorizes analysis.

Sample acceptance criteria include proper custody and sample labeling documentation. Proper custody documentation includes an entry for all physical samples delivered to the laboratory with an identification code that matches the sample bottle and a date and signature of the individual who collected the sample and delivered them to the laboratory.

SGS reserves the right to refuse any sample which in its sole and absolute discretion and judgment is hazardous, toxic and poses or may pose a health, safety or environmental risk during handling or processing. The company will not accept samples for analysis using methodology that is not performed by the laboratory or for methods that lab does not hold valid accreditations unless arrangements have been made to have the analysis conducted by a qualified subcontractor.

SGS does not accept radioactive samples, however, the policy for sample handling of Naturally Occurring Radioactive Materials (NORM) is described below:

Samples that meet the Federal Department of Transportation and International Air Transportation Association criteria could be accepted and handled following normal

procedures (except for disposal) in the lab. This corresponds to samples with United Nations (UN) labels indicating levels of < 500 uR/hour. Samples containing levels at or higher than 500 uR/hour will not be accepted by SGS. Clients must inform SGS of the level of radiation by screening the samples and documenting the level on the Chain of Custody or other form in order for the samples to be accepted.

SGS would require that any shipments containing samples of this type must be clearly labeled with UN labels showing the measured level of radioactivity as < 500 uR/hour.

These samples cannot be disposed of in our normal waste streams. Therefore, on completion of analysis, the samples would be returned to the client or disposed of using an alternate waste handler. In either case, the client would be responsible for the additional shipping or disposal charges, as well as processing charges for segregating the waste stream in the lab.

9.7 ***Assignment of Unique Sample Identification Codes***. Unique identification codes are assigned to each sample bottle to assure traceability and unambiguously identify the tests to be performed in the laboratory.

The sample identification coding process begins with the assignment of a unique alphanumeric job number. A job is defined as a group of samples received on the same day, from a specific client pertaining to a specific project. A job may consist of groups of samples received over a multi-day period. The first two characters of the job number are alpha-characters that identify the laboratory facility. The next characters are numeric and sequence by one number with each new job.

Unique sample numbers are assigned to each bottle collected as a discrete entity from a designated sample point. This number begins with the job number and incorporates a second series of numbers beginning at one and continuing chronologically for each point of collection. The test to be performed is clearly identified on the bottle label. Multiple sample bottles collected for analysis of the same parameter are numbered bottle 1, 2, etc.

Alpha suffixes may be added to the sample number to identify special designations such as subcontracted tests, in-house QC checks, or re-logs. Multiple sample bottles for a specific analysis are labeled Bottle 1, Bottle 2, etc.

9.8 ***Subcontracted Analysis***. Subcontract laboratories are employed to perform analysis not performed by SGS. The quality assurance staff evaluates subcontract laboratories to assure their quality processes meet the standards of the environmental laboratory industry prior to engagement. Throughout the subcontract process, SGS follows established procedures to assure that sample custody is maintained and the data produced by the subcontractor meets established quality criteria.

*Subcontracting Procedure***.** Subcontracting procedures are initiated through several mechanisms, which originate with sample management. Samples for analysis by a subcontractor are logged

into the SGS system using regular login procedures. If subcontract parameters are part of the project or sample management has received subcontracting instructions for a specific project, a copy of the chain of custody is given to the appropriate project manager with the subcontracted parameters highlighted. This procedure triggers the subcontract process at the project management level. The project manager contacts an approved subcontractor that carries accreditation in the venue of the project location to place the subcontract order. A subcontract order form (SOF) is simultaneously prepared in electronic format, by the project manager and filed with the original chain of custody. The SOF and the subcontract chain of custody are forwarded to sample management, via email, for processing. A copy is filed with the original CoC.

Sample management signs the subcontract chain of custody and ships the sample(s) to the subcontractor. The subcontract CoC is filed with the original CoC and the request for subcontract. Copies are distributed to the login department, the project manager, sample management and the client.

Clients are verbally notified of the need to subcontract analysis as soon as the need is identified by the client services staff. This may occur during the initial project setup or at the time of login if the project setup had not been initiated through the client services staff. Copies of the subcontract CoC and the original CoC, which are electronically distributed to clients, constitutes documented client notification of the laboratories intent to subcontract analysis.

Subcontractor data packages are reviewed by the QA Staff to assess completeness and quality compliance. If completeness defects are detected, the subcontractor is asked to immediately upgrade the data package. If data quality defects are detected, the QA staff retains the package for further review. The QA staff will pursue a corrective action solution before releasing defective data to the client.

Approved subcontract data is entered into the laboratory information management system (LIMS) if possible and incorporated into the final report. All subcontract data is footnoted to provide the client with a clear indication of its source. Copies of original subcontract data are included in the data report depending on the reporting level specified by the client. Applicable subcontractor accreditation information is provided with the subcontractor data.

*Subcontract Laboratory Evaluation***.** The QA staff evaluates subcontract laboratories prior to engagement. The subcontract laboratory must provide SGS with proof of a valid certification to perform the requested analysis for the venue where they were collected and for a specific program should an approval or accreditation be required. In addition, the QA staff may require a copy of the laboratory's Quality Systems Manual, copies of SOPs used for the subcontracted analysis, a copy of the most recent performance evaluation study for the subcontracted parameter, copies of the internal data integrity policy and copies of the most recent regulatory agency or third party accreditor audit report. Certification verification must be submitted to SGS annually. If possible, the QA staff may conduct a site visit to the laboratory to inspect the quality system. SGS assumes the responsibility for the performance

of all subcontractors who have successfully demonstrated their qualifications and should obtain an example data deliverable package prior to initiation of subcontract work for compliance review. Qualification of a subcontract laboratory may be bypassed if the primary client directs SGS to employ a specific subcontractor.

9.9 ***Sample Storage***. Following sample transfer to the sample custodian, samples are assigned to various secured, refrigerated storage areas depending upon the test to be performed and the matrix of the samples. The location (refrigerator and shelf) of each sample is recorded on the chain of custody adjacent to the line corresponding to each sample number and also entered into the LIMS. Samples remain in storage until the laboratory technician requests that they be transferred into the laboratory for analysis.

Second shift staff is authorized to retrieve samples from storage and initiate custody transfer. All sample request forms must be completed regardless of who performs the transfer.

Samples for volatile organics analysis are placed in storage in designated refrigerators by the sample custodian and immediately transferred to the organics group control. Sample custody is transferred to the department designee. These samples are segregated according to matrix to limit opportunities for cross contamination to occur.

Organics staff is authorized to retrieve samples from these storage areas for analysis. When analysis is complete, the samples are placed back into storage.

9.10 ***Sample Login***. Following sample custody transfer to the laboratory, the documentation that describes the client's analytical requirements are delivered to the sample login group for coding and entry to the Laboratory Information Management System (LIMS). This process translates all information related to collection time, turnaround time, sample analysis, and deliverables into a code which enables client requirements to be electronically distributed to the various departments within the laboratory for scheduling and execution.

The technical staff is alerted to client or project specific requirements through the use of a unique project code that is electronically attached to the job during login. The unique project code directs the technical staff to controlled specifications documents detailing the unique requirements.

9.11 ***Sample Retrieval for Analysis***. Individual laboratory departments prepare and submit written requests to the sample custodian to retrieve samples for analysis. The sample custodian retrieves all samples except volatile organics and delivers them to the requesting department. Retrieval priorities are established by the requesting department and submitted to the sample custodian when multiple requests are submitted. Internal custody transfers using the bar code scanning system occur whenever the samples change hands or locations.
After sample analysis has been completed, the department requests pick-up and return of the sample to the storage area. The sample custodian retrieves the sample and completes the

custody transfer from the department of the transfer back to sample management or sample storage.

9.12 ***Sample Disposal***. SGS retains all samples and sample extracts under proper storage for a minimum of 30 days following completion of the analysis report. Longer storage periods are accommodated on a client specific basis if required. Samples may also be returned to the client for disposal.

SGS disposes of all laboratory wastes following the requirements of the Resource Conservation and Recovery Act (RCRA). The Company has obtained and maintains a waste generator identification number, NJD982533622.

Sample management generates a sample disposal dump sheet from the LIMS tracking system each week, which lists all samples whose holding period has expired. Data from each sample is compared to the hazardous waste criteria established by the New Jersey DEP.

Samples containing constituents at concentrations above the criteria are labeled as hazardous and segregated into five general waste categories for disposal as follows:

- Waste Oil
- Soil (solids – positive and negative hazardous characteristics)
- Mixed Aqueous
- Sludges (semi-solids)
- PCB Hazardous Waste (USEPA 40 CFR 761 criteria).

Non-hazardous aqueous samples are diluted and disposed directly into the laboratory sink. All aqueous liquids pass through a neutralization system before entering the municipal system. Solid samples are emptied into consolidation drums and disposed as hazardous waste or non-hazardous wastes depending upon the results of hazardous characteristics determination. Samples classified as PCB hazardous wastes are labeled and packaged according to the requirements in 40 CFR 761.

Empty glass and plastic bottles from aqueous and solid samples are segregated for recycling. Recycled materials are collected by a commercial contractor and transferred to a county transfer facility for separation into various materials categories. These operations are classified as secure facilities employing cameras, security guards and fiber optic security systems. The recyclable material is transported to a recycling facility for further processing. Separated glass is transported to a processing facility where it is acid washed in two, separate wash baths, rinsed in boiling water and ground into ½ inch chunks. The chunks are transported to an end product user for re-manufacturing into a glass product.

Separated plastic is transported to a processing facility where it is acid washed to remove the labels and adhesives and boiled for sterilization. The sample containers and any remaining labels are shredded and ground resulting in complete destruction of remaining labels the

ground material is sent by rail car or tractor-trailer to various end users that melt and reform the material into useful products of their industry. The recycling facility employs a Code of Ethics in which all client names are confidential and are not divulged to any individual or corporation without written permission from the client.

Laboratory wastes are collected by waste stream in designated areas throughout the laboratory. Waste streams are consolidated twice each week by the waste custodian and transferred to stream specific drums for disposal through a permitted waste management contractor. Filled, consolidated drums are tested for hazardous characteristics and scheduled for removal from the facility for appropriate disposal based on the laboratory data.

All solvent extracts and digestates are collected for disposal following the thirty-day holding period and drummed according to their specific waste stream category. Chlorinated solvent extracts are drummed as chlorinated wastes (i.e., Methylene Chloride). Non-chlorinated solvent extracts are drummed as non-chlorinated wastes (i.e., acetone, hexane, methanol, and mixed solvents). Digestates are collected for disposal following the thirty-day holding period and drummed as corrosive liquid containing metals.

10.0 LABORATORY INSTRUMENTATION AND MEASUREMENT STANDARDS

Requirement: The laboratory has established procedures, which assure that instrumentation is performing to a pre-determined operational standard prior to the analysis of any samples. In general, these procedures follow the regulatory agency requirements established in promulgated methodology. The instrumentation selected to perform specified analysis are uniquely identified and capable of providing the method specified uncertainty of measurement needed. These procedures are documented and incorporated into the standard operating procedures for the method being executed.

10.1 ***Mass Tuning – Mass Spectrometers***. The mass spectrometer tune and sensitivity is monitored to assure that the instrument is assigning masses and mass abundances correctly and that the instrument has sufficient sensitivity to detect compounds at low concentrations. This is accomplished by analyzing a specific mass tuning compound at a fixed concentration. If the sensitivity is insufficient to detect the tuning compound, corrective action must be performed prior to the analysis of standards or samples. If the mass assignments or mass abundances do not meet criteria, corrective action must be performed prior to the analysis of standards or samples.

10.2 ***Wavelength Verification – Spectrophotometers***. Spectrophotometer detectors are checked on a regular schedule to verify proper response to the wavelength of light needed for the test in use. If the detector response does not meet specifications, corrective action (detector adjustment or replacement) is performed prior to the analysis of standards or samples.

10.3 ***Inter-element Interference Checks (Metals)***. Inductively Coupled Plasma Emission Spectrophotometers (ICP) are subject to a variety of spectral interferences, which can be minimized or eliminated by applying interfering element correction factors and background correction points. Interfering element correction factors are checked on a specified frequency through the analysis of check samples containing high levels of interfering elements. Analysis of single element interferant solutions is also conducted at a specified frequency.

If the check indicates that the method criteria have not been achieved for any element in the check standard, the analysis is halted and data from the affected samples are not reported. Sample analysis is resumed after corrective action has been performed and the correction factors have been re-calculated.

New interfering element correction factors are calculated and applied whenever the checks indicate that the correction factors are no longer meeting criteria. At a minimum, correction factors are replaced once a year.

Inductively Coupled Plasma – Mass Spectrometry (ICP-MS) also is subject to isobaric elemental and polyatomic ion interferences. These interferences are corrected through the use

of calculations. The accuracy of corrections is dependent on the sample matrix and instrument conditions and is verified by quality control checks on individual runs.

10.4 ***Calibration and Calibration Verification***. Many tests require calibration using a series of reference standards to establish the concentration range for performing quantitative analysis. Instrument calibration is performed using standards that are traceable to national standards. Method specific procedures for calibration are followed prior to any sample analysis. In general, if a reference method does not specify the number of calibration standards, the minimum number is two (one of which is at the reporting limit or limit of quantitation).

Calibration is performed using a linear regression calculation or calibration factors calculated from the curve. The calibration must meet method specific criteria for linearity or precision. If the criteria are not achieved, corrective action (re-calibration or instrument maintenance) is performed. The instrument must be successfully calibrated before analysis of samples can be conducted.

Initial calibration for metals analysis performed using inductively coupled plasma (ICP) employs the use of a single standard and a calibration blank to establish linearity. Inductively Coupled Plasma – Mass Spectrometry (ICP-MS) can be calibrated using either a two point or a multi-point calibration, as long as all quality control criteria for the analysis can be achieved. The calibration blank contains all reagents that are placed into the calibration standard with the exception of the target elements. Valid calibration blanks must not contain any target elements.

Initial calibrations must be verified using a single concentration calibration standard from a second source (i.e. separate lot or different provider). The continuing validity of existing calibrations must be regularly verified using a single calibration standard. The response to the standard must meet pre-established criteria that indicate the initial calibration curve remains valid. If the criteria are not achieved corrective action (re-calibration) is performed before any additional samples may be analyzed.

If continuing calibration verification results are outside established criteria, data associated with the verification may be fully useable under the following conditions:

- When the acceptance criteria for the continuing calibration verification are exceeded high, i.e., high bias, and there are associated samples that are non-detects, then those non-detects may be reported.

- When the acceptance criteria for the continuing calibration verification are exceeded low, i.e., low bias, those sample results may be reported if they exceed a maximum regulatory limit/decision level.

Calibration verification is also performed whenever it appears that the analytical system is out of calibration or no longer meets the calibration requirements. It is also performed when the time period between calibration verifications has expired.

Sample results are quantitated from the initial instrument calibration unless otherwise required by regulation, method, or program specific criteria.

10.5 ***Linear Range Verification and Calibration (ICP & ICP/MS Metals)***. Linear range verification is performed for all ICP and ICP/MS instrumentation. The regulatory program or analytical method specifies the verification frequency. A series of calibration standards are analyzed over a broad concentration range. The data from these analyses are used to determine the valid analytical range for the instrument. ICP instrument calibration is routinely performed using a single standard at a concentration within the linear range and a blank.

Some methods or analytical programs require a low concentration calibration check to verify that instrument sensitivity is sufficient to detect target elements at the reporting limit. The analytical method or regulatory program defines the criteria used to evaluate the low concentration calibration check. If the low calibration check fails criteria, corrective action is performed and verified through reanalysis of the low concentration calibration check before continuing with the field sample analysis. . ICP-MS instrument calibration is normally performed using multiple standards within the linear range and a blank, but may be done with a single standard at a concentration within the linear range and a blank.

10.6 ***Retention Time Development and Verification (GC)***. Chromatographic retention time windows are developed for all analysis performed using gas chromatographs with conventional detectors. An initial experimental study is performed, which establishes the width of the retention window for each compound. The retention time width of the window defines the time ranges for elution of specified target analytes on the primary and confirmation columns. Retention time windows are established upon initial calibration, applying the retention time range from the initial study to each target compound. Retention times are regularly confirmed through the analysis of an authentic standard during calibration verification. If the target analytes do not elute within the defined range during calibration verification, the instrument must be recalibrated and new windows defined. New studies are performed when major changes, such as column replacement are made to the chromatographic system.

10.7 ***Equipment List.*** See Appendix IV for a listing of all equipment used for measurement and/or calibration in laboratory processes.

11.0 INSTRUMENT MAINTENANCE

Requirement. Documented procedures have been established for conducting equipment maintenance. The procedure includes maintenance schedules if required or documentation of daily maintenance activities. All instrument maintenance activities are documented in instrument specific logbooks.

11.1 ***Routine, Daily Maintenance***. Routine, daily maintenance is required on an instrument specific basis and is performed each time the instrument is used. Daily maintenance includes activities to insure a continuation of good analytical performance. This may include performance checks that indicate if non-routine maintenance is needed. If performance checks indicate the need for higher level maintenance, the equipment is taken out of service until maintenance is performed. Analysis cannot be continued until all performance checks meet established criteria and a return to operational control has been demonstrated and documented. The individual assigned to the instrument is responsible for daily maintenance.

11.2 ***Non-routine Maintenance***. Non-routine maintenance is initiated for catastrophic occurrences such as instrument failure. The need for non-routine maintenance is indicated by failures in general operating systems that result in an inability to conduct required performance checks or calibration. Equipment in this category is taken out of service, tagged accordingly and repaired before attempting further analysis. Before initiating repairs, all safety procedures for safe handling of equipment during maintenance, such as lock-out/tag-out are followed. Analysis is not resumed until the instrument meets all operational performance check criteria, is capable of being calibrated and a return to operational control has been demonstrated and documented. Section supervisors are responsible for identifying non-routine maintenance episodes and initiating repair activities to bring the equipment on-line. This may include initiating telephone calls to maintenance contractors if necessary. They are responsible for documenting all details related to the occurrence and repair.

11.3 ***Scheduled Maintenance***. Modern laboratory instrumentation rarely requires regular preventative maintenance. If required, the equipment is placed on a schedule, which dictates when maintenance is needed. Examples include annual balance calibration by an independent provider or ICP preventative maintenance performed by the instrument manufacturer. Section supervisors are responsible for initiating scheduled maintenance on equipment in this category. Scheduled maintenance is documented using routine documentation practices.

11.4 ***Maintenance Documentation***. Routine and non-routine maintenance activities are documented in logbooks assigned to instruments and equipment used for analytical measurements. The logbooks contain preprinted forms, which specify the required maintenance activities. The analyst or supervisor performing or initiating the maintenance activity is required to check the activity upon its completion and initial the form. This includes documenting that the instrument has been returned to operational control following the completion of the activity. Non-routine maintenance (repairs, upgrades) is documented on the back page of the service log.

12.0 QUALITY CONTROL PARAMETERS, PROCEDURES, AND CORRECTIVE ACTION

Requirement: All procedures used for test methods incorporate quality control parameters to monitor elements that are critical to method performance. Each quality parameter includes acceptance criteria that have been established by regulatory agencies for the methods in use. Criteria may also be established through client dictates or through the accumulation and statistical evaluation of internal performance data. Data obtained for these parameters during routine analysis must be evaluated by the analyst, and compared to the method criteria in use. If the criteria are not achieved, the procedures must specify corrective action and conformation of control before proceeding with sample analysis. QC parameters, procedures, and corrective action must be documented within the standard operating procedures for each method. In the absence of client specific objectives the laboratory must define qualitative objectives for completeness and representativeness of data.

12.1 ***Procedure***. Bench analysts are responsible for methodological quality control and sample specific quality control. Each method specifies the control parameters to be employed for the method in use and the specific procedures for incorporating them into the analysis. These control parameters are analyzed and evaluated with every designated sample group (batch).

The data from each parameter provides the analyst with critical decision making information on method performance. The information is used to determine if corrective action is needed to bring the method or the analysis of a specific sample into compliance. These evaluations are conducted throughout the course of the analysis. Each control parameter is indicative of a critical control feature. Failure of a methodological control parameter is indicative of either instrument or batch failure. Failure of a sample control parameter is indicative of control difficulties with a specific sample or samples.

Sample Batch. All samples analyzed in the laboratory are assigned to a designated sample batch, which contains all required quality control samples and a defined maximum number of field samples that are prepared and/or analyzed over a defined time period. The maximum number of field samples in the preparation batch is 20. SGS has incorporated The NELAC Institute (TNI) Standard batching policy as the sample-batching standard. This policy incorporates the requirement for blanks and spiked blanks as a time based function as defined by TNI Standard. Accordingly, the specified time period for a sample batch is 24 hours. Matrix spike/matrix spike duplicate, matrix spikes and duplicates are defined as sample frequency based functions and may be applied to several batches until the frequency requirement has been reached. A matrix spike/matrix spike duplicate, matrix spikes and/or duplicate is required every 20 samples.

Client criteria that defines a batch as a time based function which includes a matrix spike/matrix spike duplicates as a contractual specification will be honored. The typical batch contains a blank and a laboratory control sample (LCS or spiked blank). Batch documentation includes lot specifications for all reagents and standards used during preparation of the batch.

12.2 ***Methodological Control Parameters and Corrective Action***. Prior to the analysis of field samples the analyst must determine that the method is functioning properly. Specific control parameters indicate whether critical processes meet specified requirements before continuing with the analysis. Method specific control parameters must meet criteria before sample analysis can be conducted. Each of these parameters is related to processes that are under the control of the laboratory and can be adjusted if out of control.

Method Blank. A method blank is analyzed during the analysis of any field sample. The method blank is defined as a sample. It contains the same standards (internal standards, surrogates, matrix modifiers, etc.) and reagents that are added to the field sample during analysis, with the exception of the sample itself. If the method blank contains target analytes(s) at concentrations that exceed method detection limit concentrations (organics) or reporting limit concentrations (inorganics), the source of contamination is investigated and eliminated before proceeding with sample analysis. Target analyte(s) in method blanks at concentrations no greater than one-half of the reporting limit concentrations (metals) may be requested on a client or project specific basis. Systematic contamination is documented for corrective action and resolved following the established corrective action procedures.

Laboratory Control Samples (LCS or Spiked Blanks). A laboratory control sample (spiked blank or commercially prepared performance evaluation sample) is analyzed along with field samples to demonstrate that method accuracy is within acceptable limits. These spike solutions may be from different sources than the sources of the solutions used for method calibration depending upon the method requirements. All target components are included in the spike mixture over a two year period. The performance limits are derived from published method specifications or from statistical data generated from the analysis of laboratory method performance samples. Spiked blanks are blank matrices (reagent water or clean sand) spiked with target parameters and analyzed using the same methods used for samples. Accuracy data is compared to laboratory derived limits to determine if the method is in control. Laboratory control samples (LCS) are commercially prepared spiked samples in an inert matrix. Performance criteria for recovery of spiked analytes are pre-established by the commercial entity preparing the sample. The sample is analyzed in the laboratory as an external reference.

Accuracy data is compared to the applicable performance limits. If the spike accuracy exceeds the performance limits, corrective action, as specified in the SOP for the method is performed and verified before continuing with a field sample analysis. In some cases, decisions are made to continue with sample analysis if performance limits are exceeded, provided the unacceptable result has no negative impact on the sample data.

Blanks and spikes are routinely evaluated before samples are analyzed. However, in situations where sample analysis is performed using an auto sampler, they may be evaluated after sample analysis has occurred. If the blanks and spikes do not meet criteria, sample analysis is repeated.

Proficiency Testing. Proficiency test samples (PTs) are single or double blind spikes, introduced to the laboratory to assess method performance. PTs may be introduced as double blinds submitted by commercial clients, single or double blinds from regulatory agencies, or internal blinds submitted by the QA group.

A minimum of two single blind studies must be performed each year for every parameter in aqueous and solid matrices for each field of testing for which the laboratory maintains accreditation. Proficiency samples must be purchased as blinds from an A2LA accredited vendor. Data from these studies are provided to the laboratory by the vendor and reported to accrediting agencies. If unsatisfactory performance is noted, corrective action is performed to identify and eliminate any sources of error. A new single blind must be analyzed if required to demonstrate continuing proficiency.

PT samples performed for accrediting agencies or clients, which do not meet performance specifications, require a written summary that documents the corrective action investigation, findings, and corrective action implementation. A copy of this summary shall be submitted to the TNI Standard Primary Accrediting Authority, NJDEP Office of Quality Assurance for review.

Single or double blind proficiency test samples may be employed for self-evaluation purposes. Data from these analyses are compared to established performance limits. If the data does not meet performance specifications, the system is evaluated for sources of acute or systematic error. If required, corrective action is performed and verified before initiating or continuing sample analysis.

Trend Analysis for Control Parameters. The quality assurance staff is responsible for continuous analytical improvement through quality control data trend analysis. Accuracy data for spiked parameters in the spiked blank are statistically evaluated weekly for trends indicative of systematic problems. Data from LCS parameters and surrogates are pooled on a method, matrix, and instrument basis. This data is evaluated by comparison to existing control and warning limits. Trend analysis is performed automatically as follows:

- Any point outside the control limit
- Any three consecutive points between the warning and control limits
- Any eight consecutive points on the same side of the mean.
- Any six consecutive points increasing or decreasing

The results of the trend analysis are transmitted as .PDF files for supervisory evaluation prior to sample analysis. Trends that indicate the potential loss of statistical control are further evaluated to determine the impact on data quality and to determine if corrective action is necessary. If corrective action is indicated, the supervisor informs the analysts of the corrective actions to be performed. Return to control is demonstrated before analysis resumes.

12.3 ***Sample Control Parameters and Corrective Action***. The analysis of samples can be initiated following a successful demonstration that the method is operating within established controls. Additional controls are incorporated into the analysis of each sample to determine if the method is functioning within established specifications for each individual sample. Sample QC data is evaluated and compared to established performance criteria. If the criteria are not achieved the method or the SOP specifies the corrective action required to continue sample analysis. In many cases, failure to meet QC criteria is a function of sample matrix and cannot be remedied. Each parameter is designed to provide quality feedback on a defined aspect of the sampling and analysis episode.

Duplicates. Duplicate sample analysis is used to measure analytical precision. This can also be equated to laboratory precision for homogenous samples. Precision criteria are method dependent. If precision criteria are not achieved, corrective action or additional action may be required. Recommended action must be completed before sample data can be reported.

Laboratory Spikes & Spiked Duplicates. Spikes and spiked duplicates are used to measure analytical precision and accuracy for the sample matrix selected. Precision and accuracy criteria are method dependent. If precision and accuracy criteria are not achieved, corrective action or additional action may be required. Recommended action must be completed before reporting sample data. All target components are included in the spike mixture over a two year period.

Serial Dilution (Metals). Serial dilutions of metals samples are analyzed to determine if analytical matrix effects may have impacted the reported data. If the value of the serially diluted samples does not agree with the undiluted value within a method-specified range, the sample matrix may be causing interferences, which may lead to either a high or low bias. If the serial dilution criterion is not achieved, it must be flagged to indicate possible bias from matrix effects.

Post Digestion Spikes. Digested samples are spiked and analyzed to determine if matrix interferences are biasing the results when the pre-digestion spike (matrix spike) recovery falls outside the control limits. It may also be used to determine potential interferences per client's specification. The sample is spiked at the concentration specified in the method SOP. No action is necessary if the post digestion spike is outside of the method criteria, unless a preparation problem is suspected with the spike, in which case the post digestion spike should be re-prepared and reanalyzed.

Surrogate Spikes (Organics). Surrogate spikes are organic compounds that are similar in behavior to the target analytes but unlikely to be found in nature. They are added to all quality control and field samples to measure method performance for each individual sample. Surrogate accuracy limits are derived from published method specifications or from the statistical evaluation of laboratory generated surrogate accuracy data. Accuracy data is compared to the applicable performance limits. If the surrogate accuracy exceeds performance limits, corrective action, as specified in the method or SOP is performed before sample data can be reported.

Internal Standards (Organic Methods). Internal standards are retention time and instrument response markers added to every sample to be used as references for quantitation. Their response is compared to reference standards and used to evaluate instrument sensitivity on a sample specific basis. Internal standard retention time is also compared to reference standards to assure that target analytes are capable of being located by their individual relative retention time.

If internal standard response criteria are not achieved, corrective action or additional action may be required. The recommended action must be completed before sample data can be reported.

If the internal standard retention time criteria are not achieved corrective action or additional action may be required. This may include re-calibration and re-analysis. Additional action must be completed before sample data is reported.

Internal Standards (ICP and ICP/MS Metals). Internal standards are used on ICP instruments to compensate for variations in response caused by differences in sample matrices. Multiple internal standards are used for each sample on ICP/MS instruments to compensate for variations in response caused by differences in sample matrices. This adjustment is performed automatically during sample analysis. The internal standard response of replicated sample analysis is monitored to detect potential analytical problems. If analytical problems are suspected, then the field samples may be reanalyzed or reanalyzed upon dilution to minimize the interferences. A different internal standard may be employed for quantitation in situations where the field sample contains the element typically used as the internal standard.

12.4 ***Laboratory Derived Quality Control Criteria.*** Control criteria for in-house methods and client specific modifications that exceed the scope of published methodology are defined and documented prior to the use of the method. The Quality Assurance Director is responsible for identifying additional control criteria needs. Control parameters and criteria, based on best technical judgment are established using input provided by the operations staff. These control parameters and criteria are documented and incorporated into the method.

The laboratory-derived criteria are evaluated for technical soundness on spiked samples prior to the use of the method on field samples. The technical evaluation is documented and archived by the Quality Assurance Staff.

When sufficient data from the laboratory developed control parameter is accumulated, the data is statistically processed and the experimentally derived control limits are incorporated into the method.

12.5 ***Bench Review & Corrective Action***. The bench chemists are responsible for all QC parameters. Before proceeding with sample analysis, they are required to successfully meet all instrumental QC criteria. They have the authority to perform any necessary corrective action

before proceeding with sample analysis. Their authority includes the responsibility for assuring that departures from documented policies and procedures do not occur.

The bench chemists are also responsible for all sample QC parameters. If the sample QC criteria are not achieved, they are authorized and required to perform the method specified corrective action before reporting sample data.
Whenever possible, samples are analyzed straight to minimize detection and reporting limits. If dilutions need to be applied, the minimum dilution is used bring the target compounds in the range of the curve. This dilution may be determined from the original analysis or from screening data. If the target range is large, then multiple dilutions may be required to optimize reporting limits for the maximum number of targets. Up to 3 dilutions may be used for a given sample. In some cases, very high levels of an interfering target may force larger dilutions for other target compounds. In all cases a conservative approach to dilution is applied to minimize the increase of detection and reporting limits.

12.6 ***Data Qualifiers*.** An alpha character coding system is employed for defining use limitations for reported data. These limitations are applied to analytical data by the analyst to clarify the usefulness of the reported data for data user. Common data qualifiers and their definitions are as follows:

Organics.

J: Indicates an estimated value. Applied to calculated concentrations for tentatively identified compounds and qualitatively identified compounds whose concentration is below the reporting limit, but above the MDL.

N: Indicates qualitative evidence of a tentatively identified compound whose identification is based on a mass spectral library search and is applied to all TIC results.

C: Applied to pesticide data that has been qualitatively confirmed by GC/MS.

B: Used for analytes detected in the sample and its associated method blank.

E: Applied to compounds whose concentration exceeds the upper limit of the calibration range.

Metals and Inorganics.

B: Applied if the reported concentration value was less than the reporting limit but greater than the MDL.

U: Applied if the reading is less than the MDL (or IDL if IDL reporting is being used).

E: Estimated concentration caused by the presence of interferences, normally applied when the serial dilution is out.

N: Spike sample recovery not within control limits.

*: Duplicate or matrix spike duplicate analysis not within control limits.

12.7 ***Data Package Review***. SGS employs at least two levels of data review, the final review must be performed by a manager, supervisor or designated reviewer, to assure that reported data has satisfied all quality control criteria and that client specifications and requirements have been met. Each production department has developed specific data review procedures, which must be completed before data is released to the client.

Analytical Review. The analyst conducts the primary review of all data. This review begins with a check of all instrument and method quality control and progresses through sample quality control, concluding with a check to assure that the client's requirements have been executed. Analyst checks focus on a review of qualitative determinations and checks of precision and accuracy data to verify that existing laboratory criteria have been achieved. Checks at this level may include comparisons with project specific criteria if applicable. The analyst has the authority and responsibility to perform corrective action for any out-of-control parameter or nonconformance at this stage of review.

Analysts who have met the qualification criteria for the method in use perform secondary, peer level data reviews. Analyst qualification requirements include a valid demonstration of capability and demonstrated understanding of the method SOP. Section supervisors may perform secondary review in-lieu of a peer review. Managers, Supervisors or designated reviewers evaluate 100% of the data produced by their department. It includes a check of all manual calculations; an accuracy check of manually transcribed data from bench sheets to the LIMS, a check of calibration and continuing calibration, all QC criteria and a comparison of the data package to client specified requirements. Also included are checks to assure the appropriate methodology was applied and that all anomalous information was properly flagged for communication in the case narrative. Supervisors have the authority to reject data and initiate re-analysis, corrective action, or reprocessing.

All laboratory data requiring manual entry into LIMS system is double-checked by the analysts performing initial data entry and the section supervisor. Verification of supervisory review is indicated on the raw data summary by the manager, supervisor, or designated reviewer's initials and date.

Electronic data that is manually edited at the bench by the primary analyst is automatically flagged by the instrument data system indicating an override by the analyst. All manual overrides must be verified and approved by a supervisor who initials and dates all manual changes.

Hard copies (or PDF) of manually integrated chromatographic peaks are printed that clearly depict the manually drawn baseline. The hard copy (or PDF) is reviewed and approved by the section manager, supervisor or designated reviewer (initialed and dated) and included in the

data package of all full tier reports or the archived batch records of commercial report packages.

Edits to electronic data that have already been committed to the LIMS database are controlled through the use of the Master Edit function in LIMS. Permission to access this program is limited to those approved by the upper levels of laboratory management and is controlled by the Information Technology staff. A GALP electronic audit record trail is maintained for all changes that are made and is automatically appended to the record.

The group manager performs a tertiary review on a spot check basis. This review includes an evaluation of QC data against acceptance criteria and a check of the data package contents to assure that all analytical requirements and specifications were executed.

Report Generation Review. The report generation group reviews all data and supporting information delivered by the laboratory for completeness and compliance with client specifications. Missing deliverables are identified and obtained from the laboratory. The group also reviews the completed package to verify that the delivered product complies with all client specifications. Non-analytical defects are corrected before the package is sent to the client.

Project Management/Quality Control Review. Spot-check data package reviews are performed by the project management staff. Project management reviews focus on project specifications. If the project manager identifies defects in the product prior to release, he initiates immediate corrective action to rectify the situation.

The QA staff performs a post-delivery check of completed data packages to verify completeness and compliance with established quality control procedures. Approximately 10% of data packages are reviewed. Detected deficiencies are brought to the laboratories attention and corrective actions initiated as necessary.

The QA review focuses on all elements of the deliverable including analytical quality control, sample custody documentation case narratives and data qualifiers QA reviews at this step in the production process are geared towards systematic process defects, which require procedural changes to effect a corrective action. However, if defects are identified that have an adverse effect on data, the client is immediately informed following standard notification procedures. QA data review is not used in lieu of a peer level review or a supervisory review.

Data Reporting. Analytical data is released to clients following a secondary review by the manager, supervisor or designated reviewer. Data release at this stage of the process is limited to electronic information, which is released to clients through a secure, encrypted, password protected, Internet connection. Hard copy support data is compiled by the report generation group and assembled into the final report. The report is sent to the client following reviews by the report generation staff.

All data reports include specified information, which is required to identify the report and its contents. This information includes a title, name and address of the laboratory, a unique report number, total number of pages in the report, clients name and address, analytical method identification, arriving sample condition, sample and analysis dates, test results with units of measurement, authorized signature of data release, statement of applicability, report reproduction restrictions and TNI Standard requirements certification. Data reports for the DOD Defense ELAP clients also include the time of preparation and analysis.

12.8 ***Electronic Data Reduction.*** Raw data from sample analysis is entered into the laboratory information management system (LIMS) using automated processes or manual entry. Final data processing is performed by the LIMS using procedures developed by the Company.

All LIMS programs are tested and validated prior to use to assure that they consistently produce correct results. The Information Technology Staff performs software validation testing. The testing procedures are documented in an SOP. Software programs are not approved for use until they have demonstrated that they are capable of performing the required calculations.

12.9 ***Representativeness***. Data representativeness is based on the premise that qualitative and quantitative information developed for field samples is characteristic of the sample that was collected by the client and analyzed in the laboratory. The laboratory objective for representativeness defines data as representative if the criteria for all quality parameters associated with the analysis of the sample are achieved.

12.10 ***Comparability***. Analytical data is defined as comparable when data from a sample set analyzed by the laboratory is representatively equivalent to other sample sets analyzed separately regardless of the analytical logistics. The laboratory will achieve 100% comparability for all sample data which meets the criteria for the quality parameters associated with its analysis using the method requested by the client.

13.0 CORRECTIVE ACTION SYSTEM

Requirement. The laboratory employs policies and procedures for correcting defective processes, systematic errors, and quality defects enabling the staff to systematically improve product quality. The system includes procedures for communicating items requiring corrective action to responsible individuals, corrective action tracking procedures, corrective action documentation, monitoring of effectiveness, and reports to management. The system is fully documented in a standard operating procedure. Individual corrective actions and responses are documented in a dedicated database.

13.1 ***Procedure***. Corrective action is the step that follows the identification of a process defect. The type of defect determines the level of documentation, communication, and training necessary to prevent re-occurrence of the defect or non-conformance. The formal system is maintained by the quality assurance department. Operations management is responsible for working within the system to resolve identified deficiencies.

Routine Corrective Action. Routine corrective action is defined as the procedures used to return out of control analytical systems back to control. This level of corrective action applies to all analytical quality control parameters or analytical system specifications.

Bench analysts have full responsibility and authority for performing routine corrective action. The resolution of defects at this level does not require a procedural change or staff re-training. The analyst is free to continue work once corrective action is complete and the analytical system has been returned to control. Documentation of routine corrective actions is limited to logbook comments for the analysis being performed.

Process Changes. Corrective actions in this category require procedural modifications. They may be the result of systematic defects identified during audits, the investigation of client inquiries, failed proficiency tests, product defects identified during data review, or method updates. Resolution of defects of this magnitude requires formal identification of the defect, development and documentation of a corrective action plan, and staff training to communicate the procedural change.

Technical Corrective Action. Technical corrective action encompasses routine corrective action performed by bench analysts for out of control systems and corrective actions performed for data produced using out of control systems. Technical corrective action for routine situations is conducted using the procedures detailed above.

Non-routine corrective actions apply to situations where the bench analysts failed to perform routine corrective action before continuing analysis. Supervisors and Department Managers perform corrective action in these situations. Documentation of all non-routine corrective actions is performed using the corrective action system.

Sample re-analysis is conducted if sufficient sample and holding time remain to repeat the analysis using an in-control system. If insufficient sample or holding time remains, the data is processed and qualifiers applied that describe the out of control situation. The occurrence is further documented in the case narrative and in the corrective action response. The corrective action must include provisions for retraining the analysts who failed to perform routine corrective action.

13.2 ***Documentation & Communication***. Routine corrective actions are documented as part of the analytical record. Notations are made in the comments section of the analytical chronicle or data sheet detailing the nonconformance and corrective action. Continuation of the analysis indicates that return to control was successful.

Corrective actions for process changes are documented, tracked and monitored for effectiveness. Supervisors or senior staff members may initiate corrective actions by generating a corrective action using the corrective action database application.

The corrective action database is an Access application. The initiator generates the corrective action investigation form, which is documented, tracked, distributed to responsible parties and archived through the application. The application assigns a tracking number, initiation data and due date to each action and copies the corrective action form to the database. E-mail message containing the form is automatically distributed to the responsible parties for resolution.

The responsible party identifies the root cause of the defect, initiates the immediate fix and develops and implements the procedural change. Existing documentation such as SOPs are edited to reflect the change. The affected staff is informed of the procedural change through a formal training session. The training is documented and copies are placed into individual training files. The corrective action form is completed by the responsible party and returned to the QA staff via e-mail using the database application.

Initial and completed corrective action forms are maintained in the corrective action database. This entire database is backed up and archived daily. The corrective action tracking form is maintained as an active report in the database.

Monitoring. The QA Staff monitors the implemented corrective action until it is evident that the action has been effective and the defect has been eliminated. The corrective action database is updated by QA to reflect closure of the corrective action. The QA staff assigns an error code to the corrective action for classification of the type of errors being committed. Additional monitoring of the corrective action is conducted during routine laboratory audits.

Additional monitoring of the corrective action is conducted by adding the corrective action to a verification list by the QA staff at closure. Verification is performed by the QA Staff to assure that the corrective action has remained in effect is scheduled for six (6) months from the initial closure date.

If QA determines that the corrective action response has not effectively remedied the deficiency, the process continues with a re-initiation of the corrective action. Corrective action continues until the defect is eliminated. If another procedural change is required, it is treated as a new corrective action, which is documented and monitored using established procedures.

Client Notification. Defective processes, systematic errors and/or quality defects may be detected during routine audits or data inquiries and may have negative impacts on data quality. In some cases, data affected may have been released to clients. If defective data has been released for use, SGS will identify and notify the affected clients of the defect and impact in accordance with Corrective Action SOP EQA011. For any Department of Defense (DoD) projects where instances of inappropriate and prohibited practices (as per the DoD QSM section 5.2.7) may have occurred, affected clients and the accrediting body (i.e., ANAB) must be notified within 15 business days of discovery and a corrective action plan must be provided within 30 business days of discovery.

14.0 PROCEDURES FOR EXECUTING CLIENT SPECIFICATIONS

Requirement. Systems have been established for evaluating and processing client specifications for routine and non-routine analytical services. The systems enable the client services staff to identify, evaluate, and document the requested specifications to determine if adequate resources are available to perform the analysis. The system includes procedures for communicating the specifications to the laboratory staff for execution and procedures for verifying the specifications have been executed.

14.1 ***Client Specific Requirements***. The project manager is the primary contact for clients requesting laboratory services. Client specifications are communicated using several mechanisms. The primary sources of information are the client's quality assurance project plan (QAPP) and the analytical services contract both of which detail the analytical, quality control and data reporting specifications for the project. In the absence of a QAPP, projects specifications can also be communicated using contracts, letters of authorization, or letters of agreement, which may be limited to a brief discussion of the analytical requirements and the terms and conditions for the work. These documents may also include pricing information, liabilities and scope of work, in addition to the analytical requirements. QAPPs include detailed analytical requirements and data quality objectives, which supersede those found in the referenced methods. This information is essential to successful project completion.

The client services staff provides additional assistance to clients who are unsure of the specifications they need to execute the sampling and analysis requirements of their project. They provide additional support to clients who require assistance in results interpretation as needed, provided they possess the expertise required to render an opinion.

The project manager is responsible for obtaining project documents, which specify the analytical requirements. Following project management and lab manager review, QAPPs are distributed to the QA staff for review and completion. The original QAPP is filed in a secure location.

For certain states or programs an additional form or checklist is required. In these instances QA must be notified if any new form is requested to confirm the accuracy of the new document.

14.2 ***Requirements for Non-Standard Analytical Specifications***. Client requirements that specify departures from documented policies, procedures, or standard specifications must be submitted to SGS in writing. These requirements are reviewed and approved by the technical staff before the project is accepted. Once accepted, the non-standard requirements become analytical specifications, which follow the routine procedure for communicating client specifications. Departures from documented policies, procedures, or standard specifications that do not follow this procedure are not permitted.

14.3 ***Evaluation of Resources.*** A resource evaluation is completed prior to accepting projects submitted by clients. The evaluation is initiated by the client services staff who prepares a brief synopsis that includes the logistical requirements of the project. Logistical specifications for new projects are summarized in writing for evaluation by the affected departments. The specifications are evaluated by the department manager from a scheduling and hardware resources perspective. The project is not accepted unless the department managers have the necessary resources to execute the project according to client specifications.

14.4 ***Documentation***. New projects are initiated using LIMS or a project set up form, which is completed prior to the start of the project. This form details all of the information needed to correctly enter the specifications for each client sample into the laboratory information management system (LIMS). The form includes data reporting requirements, billing information, data turnaround times, QA level, state of origin, and comments for detailing project specific requirements. The project manager is responsible for obtaining this information from the client and completing the form prior to sample arrival and login.

Sample receipt triggers project creation and the login process. The information on the set-up form is entered into the LIMS immediately prior to logging in the first sample. The set up form may be accompanied by a quotation, which details the analytical product codes and sample matrices. These details are also entered into the LIMS during login.

Special information is distributed to the laboratory supervisors and login department in electronic or hardcopy format upon project setup. All, project specific information is retained by the project manager in a secure file. The project manager maintains a personal telephone log, which details conversations with the client regarding the project.

Department managers prepare summary sheets that detail client specific analytical requirements for each test. Bench analysts use these sheets to obtain information regarding client specific analytical requirements before analyzing samples. A program code is established for each client that links the client specifications to a client project. This code is attached to a project by the project manager at login and listed on the work list for each work group conducting analysis for clients with standing requirements.

14.5 ***Communication***. A pre-project meeting is held between client services and the operations managers to discuss the specifications described in the QAPP, contract and/or related documents. Project logistics are discussed and finalized and procedures are developed to assure proper execution of the client's analytical specifications and requirements. Questions, raised in the review meeting, are discussed with the client for resolution. Exceptions to any requirements, if accepted by the client, are documented and incorporated into the QAPP or project documentation records.

Non-standard specifications for individual clients are documented in the LIMS at the client account level or program level. Simple specifications are documented as comments for each project. Once entered into the LIMS, these specifications become memorialized for all

projects related to the client account. Complex specifications are assigned program codes that link the specification to detailed analytical specifications.

Upon sample arrival, these specifications are accessed through a terminal or printed as a hard copy and stored in a binder for individuals who require access to the specification. Specifications that are not entered into the LIMS are prohibited unless documented in an interdepartmental memo, which clearly identifies the project, client and effective duration of the specification.

14.6 ***Operational Execution***. A work schedule is prepared for each analytical department on a daily basis. Analytical specifications or program codes from recently arrived samples have now been entered into the LIMS database. The database is sorted by analytical due date and holding time, into product specific groups. Samples are scheduled for analysis by due date and holding time. The completed schedule, which is now defined as a work list, is printed. The list contains the client requested product codes, program codes and specifications required for the selected sample(s). Special requirements are communicated to the analyst using the comments section or relayed through verbal instructions provided by the supervisor. The bench analyst assumes full responsibility for performing the analysis according to the specifications printed on the work sheet.

14.7 ***Verification***. Prior to the release of data to the client, the report generation staff review the report and compare the completed product to the client specifications documentation to assure that all requirements have been met. Project managers may perform a spot check of projects with unique requirements to assure that the work was executed according to specifications.

15.0 CLIENT COMPLAINT RESOLUTION PROCEDURE

Requirement. The laboratory follows a formal system for managing and reconciling client complaints. The system includes procedures for documenting the complaint and communicating it to the appropriate department for resolution. The system also includes a quality assurance evaluation to determine if the complaint is related to systematic defects requiring corrective action and process changes.

15.1 ***Procedure***. Client complaints are communicated to client services representatives, quality assurance staff, or senior management staff for resolution. The individual receiving the complaint retains the responsibility for documentation and communicating the nature of the complaint to the responsible department(s) for resolution. The responsible party addresses the complaint. The resolution is communicated to the QA department and the originator for communication to the client. QA reviews the complaint and resolution to determine if systematic defects exist. If systematic defects are present, QA initiates a corrective action for the responsible party who develops and implements a response that eliminates the defect. If systematic defects are not present and the resolution is satisfactory, the QA Staff will close the complaint/inquiry with a no further action is necessary tag.

15.2 ***Documentation***. Client's complaints are documented by the individual receiving the complaint using the Data Query and Corrective Action Inquiry Process. This process generates an E-Mail message that contains detailed information essential to the complaint resolution. A record of the telephone conversation is maintained by client services. The message is distributed to the QA staff and the party bearing responsibility for resolution by E-Mail. The complaint resolution is documented on the message by the responsible party and returned to the originator. A copy is sent to QA for review and database archiving. Positive feedback from clients is now documented in the program. In the past, these types of communications with clients were discussed at the Client Services Meeting, but were not tracked by SGS. Documenting this information can be used to improve service to all clients.

15.3 ***Corrective Action***. Responses to data queries are required from the responsible party. At a minimum, the response addresses the query and provides an explanation to the complaint. Formal corrective action may focus on the single issue expressed in the complaint. Corrective action may include reprocessing of data, editing of the initial report, and re-issue to the client. If the QA review indicates a systematic error, process modification is required. The defective process at the root of the complaint is changed. SOPs are either created or modified to reflect the change. The party responsible for the process implements process changes.

15.4 ***QA Monitoring***. Process changes, implemented to resolve systematic defects, are monitored for effectiveness by QA. If monitoring indicates that the process change has not resolved the defect, QA works with the department management to develop and implement an effective process. If monitoring indicates that the defect has been resolved, monitoring is slowly discontinued and the corrective action is closed. Continued monitoring is incorporated as an element of the annual system audit.

16.0 CONTROL OF NONCONFORMING PRODUCT

Requirement: Policies and procedures have been developed and implemented that describe the procedures employed by the laboratory when any aspect of sample analysis or data reporting do not conform to established procedures or client specifications. These procedures include steps to ensure that process defects are corrected and affected work is evaluated to assess its impact to the client.

Procedure. Nonconforming product is identified through routine internal review and audit practices or through client inquiry. The individuals who identify the nonconformance or receiving a nonconformance inquiry immediately inform the Laboratory Director and the Quality Assurance Director. The Laboratory Director initiates an evaluation of the nonconformance through the Quality Assurance Department and takes full responsibility for managing the process and identifying the course of action to take, initiating corrective action and mitigating the impact of the nonconformance to the client. Reference SOP EQA 065 Control of Non-Conforming Product and EQA 038 Complaints & Data Inquiry for specific procedures on handling non-conformances and Data Inquires.

16.1 ***Corrective Action.*** The outcome of the evaluation dictates the course of action. This includes client notification when the quality of data reported has been impacted and may also include corrective action if applicable. Immediate corrective action is performed using the procedures specified in SGS SOP EQA011. However, additional action may be required including cessation of analysis and withholding and or recalling data reports. If the evaluation indicates that nonconforming data may have been issued to clients, the client is immediately notified and data may be recalled following the procedures specified in SOP EQA011. If work has been stopped because of a nonconformance, the Laboratory Director is the only individual authorized to direct a resumption of analysis.

Non-conformances caused by systematic process defects require retraining of the personnel involved as an element of the corrective action solution.

17.0 CONFIDENTIALITY PROTECTION PROCEDURES

Requirements: Policies and procedures have been developed to protect client data from release to unauthorized parties or accidental release of database information through accidental electronic transmission or illegal intrusion. These policies have been communicated to clients and staff. Electronic systems are regularly evaluated for effectiveness.

17.1 ***Client Anonymity***. Information related to the Company's clients is granted to employees on a "need to know" basis. An individual's position within the organization defines his "need to know". Individuals with "need to know" status are given password access to systems that contain client identity information and access to documents and document storage areas containing client reports and information. Access to client information by individuals outside of the Company is limited to the client and individuals authorized by the client.

Individuals outside of the Company may obtain client information through subpoena issued by a court of valid jurisdiction. Clients are informed when subpoenas are received ordering the release of their information.

Regulatory agency requests for data or reports:

If a regulatory agency requests additional data or a revised/upgraded report for regulatory drinking water work, the appropriate client services representative must be notified so that they will provide written and verbal notification to the client that the data is being provided to the agency. The notification to the client must come before the data is provided to the agency.

If a regulatory agency requests additional reports or data for any other type of work, the data cannot be released without the written approval from the client.

-For certain types of work (i.e. Hexavalent Chromium data), clients may provide, in advance, a written approval stating that data/reports can be provided to the state on request for that project.

In the case where SGS receives a subpoena or other legal request for data or a report, SGS Legal must be notified immediately and the following steps taken:

-A copy of the Subpoena or legal request is sent to SGS Legal
-SGS Legal is involved in the client notification process, the content of the notification, and how the client is notified
-SGS Legal is involved in the response to the regulatory agency

17.2 ***Documents***. Access to client documents is restricted to employees in need to know positions. Copies of all client reports are stored in secure electronic archives with restricted access. Reports and report copies are distributed to individuals who have been authorized by the client to receive them. Data reports or data are not released to third parties without verbally expressed or written permission from the client.

17.3 ***Electronic Data***.

Database Intrusion. Direct database entry is authorized for employees of SGS only on a need to know basis. Entry to the database is restricted through a user specific multiple password entry system. Direct access to the database outside the facility is possible through secured channels set up by SGS. A unique password is required for access to the local area network. A second unique password is required to gain access to the database. The staff receives read or write level authorization on a hierarchical privilege basis.

Internet Access. Access to client information is through an HTTP Web application only. It does not contain a mechanism that allows direct access to the database. Clients can gain access to their data only using a series of SGS assigned client and user specific passwords. The viewable data, which is encrypted during transmission, consists of an extraction of database information only.

Client Accessibility. Accessibility to client data delivered via electronic means follows strict protocols to insure confidentiality. Clients accessing electronic data are assigned a company account. The account profile, which is established by the MIS staff, grants explicit access to specific information pertaining to the client's project activity. Passwords are assigned on an individual basis within a client account. These accounts can be activated or deactivated by the MIS staff only.

17.4 ***Information Requests***. Client specific data or information is not released to third parties without verbally expressed or written permission from the client. Written permission is required from third parties, who contact the Company directly for the release of information. Verbal requests will be honored only if they are received directly from the client. These requests must be documented in a record of communication maintained by the authorized recipient.

17.5 ***Transfer of Records***. Archived data, which has previously been reported and transmitted to clients, is the exclusive property of SGS. In the event of a cessation of business activities due to business failure or sale, The Company's legal staff will be directed to arrange for the final disposition of archived data.

The final disposition of archived data will be accomplished using the approach detailed in the following sequence:

1. All data will be transferred to the new owners for the duration of the required archive period as a condition of sale.

2. If the new owners will not accept the data or the business has failed, letters will be sent to clients listed on the most recent active account roster offering them the option to obtain specific reports (identified by SGS Job Number) at their own expense.

3. A letter will be sent to the TNI Standard accrediting authority with organizational jurisdiction over the company offering them the option to obtain all unclaimed reports at their own expense.

4. All remaining archived data will be recycled using the most expedient means possible.

18.0 QUALITY AUDITS AND SYSTEM REVIEWS

Requirement: The quality assurance group conducts regularly scheduled audits of the laboratory to assess compliance with quality system requirements, technical requirements of applied methodology, and adherence to documentation procedures. The information gathered during these audits is used to provide feedback to senior management and perform corrective action where needed for quality improvement purposes.

18.1 ***Quality System Reviews***. Quality system reviews are performed annually by the Quality Assurance Director. In this review, the laboratory is evaluated for compliance with the laboratory Quality Systems Manual (QSM) and the quality system standards of the National Environmental Laboratory Accreditation Conference. Findings, which indicate non-compliance or deviation from the QSM, are flagged for corrective action. Corrective actions require either a return to compliance or a plan change to reflect an improved quality process. The Quality Assurance Director is responsible for making and documenting changes to the QSM.

18.2 ***Quality System Audits.*** Quality system audits are conducted to evaluate the effectiveness and laboratory compliance with individual quality system elements. These audits are conducted on an established schedule. Audit findings are documented and communicated to the management staff and entered into the corrective action system for resolution. If necessary, retraining is conducted to assure complete understanding of the system requirements.

18.3 ***Test Method Assessments.*** Test Method Assessments are performed throughout the year following an established schedule. Selected analytical procedures are evaluated for compliance with standard operating procedures (SOPs) and method requirements. If non-conformances exist, the published method serves as the standard for compliance. SOPs are edited for compliance if the document does not reflect method requirements. Analysts are trained to the new requirements and the process is monitored by quality assurance. Analysts are retrained in method procedures if an evaluation of bench practices indicates non-compliance with SOP requirements.

18.4 ***Documentation Audits***. Documentation audits are conducted during routine internal audits. The audit includes a check of measurement processes that require manual documentation. It also includes checks of data archiving systems and a search to find and remove any inactive versions of SOPs that may still be present in the laboratory and being accessed by the analysts. Non-conformances are corrected on the spot. Procedural modifications are implemented if the evaluation indicates a systematic defect.

18.5 ***Corrective Action Monitoring***. Defects or non-conformances that are identified during client or internal audits are documented in the corrective action systems (Section 13) and corrected through process modifications and/or retraining. Once a corrective action has been designed and implemented, it is monitored for compliance on a regular basis by the QA staff.

Spot corrections are performed if the staff is not following the new procedure. Monitoring of the corrective action continues until satisfactory implementation has been verified.

18.6 ***Preventive Action.*** Laboratory systems or processes, which may be faulty and pose the potential for non-conformances, errors, confusing reports or difficulties establishing traceability may be identified during internal audits. These items are highlighted for systematic change using the corrective action system and managed to resolution using the procedures for corrective action identified in EQA041.

18.7 ***Management Reports.*** Formal reports of all audit and proficiency testing activity are prepared for the management staff and presented as they occur. Additional reports may be presented orally at regularly scheduled staff meetings

Management reports may also address the following topics:

- Status and results of internal and external audits,
- Status and results of internal and external proficiency testing,
- Identification of quality control problems in the laboratory,
- Discussion of corrective action program issues,
- Status of external certifications and approvals,
- Status of staff training and qualifications,
- Discussion of new quality system initiatives.
- Recommendations for further action on listed items are included in the report.

19.0 HEALTH AND SAFETY

Requirement.

The company health and safety program meets the requirements established by the Occupational Safety and Health Administration (OSHA) including applicable regional and local regulations and laws. All employees receive training on the program and are required to comply with its policies and procedures at every level within our organization.

19.1 Policy.

SGS provides safe and healthy working conditions to all our employees (permanent and temporary), visitors, contractors and other stakeholders. We ensure that all our services and operations are performed and managed in such a way as to protect the environment.

The company will continuously assess and improve safety management systems, programs and tools towards our "Zero incident" target.

The company provides all necessary safety equipment, resources and training gives the Stop-Work-Authority to all employees and contractors in case of any risk to health, safety or environment.

19.2 Responsibilities.

Management is responsible for ensuring full compliance with company safety policies and procedures and investigating any incidents including root cause analysis and corrective action.

The Vice President EHS and Lab Director are ultimately responsible for management decisions and actions pertaining to the health and safety program.

The Health, Safety & Environment Manager reviews and updates the health and safety program annually, establishes company-wide training, and performs inspections and audits to ensure that program elements are being implemented and compliance is being met.

Department Managers and Supervisors are responsible for daily operations, employee oversight, and ensuring the requirements of the health and safety program are practiced daily.

Employees are responsible for following all safety rules and the proper use of protective devices provided by the company. The employee is expected to comply with the requirements of the health and safety program at all times.

19.3 Program Elements.

Safety Training and Communication.

All new employees to the company are provided health and safety training on their first day. Annual safety training is conducted for all employees. Additional training is provided when new substances, equipment, or procedures are introduced and when management is made aware of a situation that requires re-training.

Training is documented and appropriate records kept with Quality Assurance.

Safety Committee.

The safety committee meets on a regular basis and establishes an additional safety "presence" throughout the facility. The safety committee promotes knowledge of health and safety at all levels, identifies and notifies of any unsafe work practices and conditions, and participates in development of safety initiatives.

Membership in the safety committee is open to any employee and will be comprised of both management and employee representatives.

Hazard Communication.

The hazard communication program enables employees to readily identify any laboratory hazards and protect themselves from those hazards. The program complies with the OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations 1910.1200 and includes the following:

- Safety Data Sheets (SDS) available to all employees
- Chemical inventory
- Globally harmonized system of classification and labeling of chemicals

Identification of Workplace Hazards.

The hazard identification procedures assure that hazards are identified and corrected before an incident occurs. Hazard identifications are reported to management by all employees and learnings are shared throughout the company.

Employee Exposure Assessment.

Employee exposure assessment is performed to identify and evaluate potential exposure hazards in the workplace. The exposure assessment data is used to document safe practices

and to determine if any changes or modifications may be required to improve the work environment.

Bloodborne Pathogens.

Awareness training on the OSHA Bloodborne Pathogen Standard, 29CFR1910.1030 is conducted to inform employees about standard precautions when someone is injured at work.

Chemical Hygiene Plan.

The Chemical Hygiene Plan meets the requirements established by the OSHA Occupational Exposure to Hazardous Chemicals in the Laboratory Standard, 29 CFR 1910.1450. The plan references best laboratory practices, engineering controls and personal protective equipment that are necessary when working in an environmental laboratory.

Chemical Spill Response.

The chemical spill response plan ensures immediate notification and corrective action in the event of a chemical spill.

Employees that are required to respond to an emergency spill are trained per the OSHA Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910.120.

Emergency Action & Evacuation.

All employees are trained on what to do in the event of an emergency that includes fire, explosion, gas leak, hazardous material spill, natural disaster and terrorist action. The plan identifies emergency coordinators, building evacuation meeting areas, and contact information for local and national emergency responders.

Lockout/Tagout.

Lockout/tagout procedures are established to ensure that mechanical and electrical equipment is made inoperable and safe before experienced individuals perform inspection, maintenance and repair.

Personal Protective Equipment.

Personal protective equipment (PPE) is provided to employees that includes safety eyewear, laboratory coat and protective gloves. Other PPE may be provided such as safety shoes, hearing protection and respirators depending on specific job tasks.

Respiratory Protection.

The respiratory protection program assures proper training, medical evaluation and respirator selection and fit testing on an annual basis for employees that are required to wear this type of personal protective equipment.

***Visitor and Contractor Safety*.**

A safety presentation including brochure is given to all visitors. Visitors must sign in, wear a visitor badge, follow the instructions of their escort, and sign out before leaving the premises.

Appendix I

Glossary of Terms

GLOSSARY OF TERMS

Acceptance Criteria: specified limits placed on characteristics of an item, process, or service defined in requirement documents.

Accuracy: the degree of agreement between an observed value and an accepted reference value. Accuracy includes a combination of random error (precision) and systematic error (bias) components which are due to sampling and analytical operations; a data quality indicator.

Analyst: the designated individual who performs the "hands-on" analytical methods and associated techniques and who is the one responsible for applying required laboratory practices and other pertinent quality controls to meet the required level of quality.

Audit: a systematic evaluation to determine the conformance to quantitative *and qualitative* specifications of some operational function or activity.

Batch: environmental samples that are prepared and/or analyzed together with the same process and personnel, using the same lot(s) of reagents. A preparation batch is composed of one to 20 environmental samples of the same TNI Standard defined matrix, meeting the above mentioned criteria and with a maximum time between the start of processing of the first and last sample in the batch to be 24 hours. An analytical batch is composed of prepared environmental samples (extracts, digestates or concentrates) which are analyzed together as a group.

Blank (BLK): a sample that has not been exposed to the analyzed sample stream in order to monitor contamination during sampling, transport, storage or analysis. The blank is subjected to the usual analytical and measurement process to establish a zero baseline or background value and is sometimes used to adjust or correct routine analytical results.

Blind Sample: a sub-sample for analysis with a composition known to the submitter. The analyst/laboratory may know the identity of the sample but not its composition. It is used to test the analyst's or laboratory's proficiency in the execution of the measurement process.

Calibration: to determine, by measurement or comparison with a standard, the correct value of each scale reading on a meter, instrument, or other device. The levels of the applied calibration standard should bracket the range of planned or expected sample measurements.

Calibration Curve: the graphical relationship between the known values, such as concentrations of a series of calibration standards and their instrument response.

Calibration Method: a defined technical procedure for performing a calibration.

Calibration Range: the range of concentrations between the lowest and highest calibration standards of a multi-level calibration curve. For metals analysis with a single-point calibration, the low-level

calibration check standard and the high standard establish the linear calibration range, which lies within the linear dynamic range.

Calibration Standard: a substance or reference material used to calibrate an instrument.

Certified Reference Material (CRM): a reference material one or more of whose property values are certified by a technically valid procedure, accompanied by or traceable to a certificate or other documentation, which is issued by a certifying body.

Chain of Custody (COC): an unbroken trail of accountability that ensures the physical security of samples and includes the signatures of all who handle the samples.

Confirmation: verification of the identity of a component through the use of an approach with a different scientific principle from the original method. These may include, but are not limited to second column confirmation, alternate wavelength, derivatization, mass spectral, interpretation, alternative detectors or, additional cleanup procedures.

Continuing Calibration Verification (CCV): the verification of the initial calibration that is required during the course of analysis at periodic intervals. Continuing calibration verification applies to both external standard and internal standard calibration techniques, as well as to linear and non-linear calibration models.

Corrective Action (CA): the action taken to eliminate the causes of an existing nonconformity, defect or other undesirable situation in order to prevent recurrence.

Data Reduction: the process of transforming raw data by arithmetic or statistical calculations, standard curves, concentration factors, etc., and collation into a more useable form.

Demonstration of Capability (DOC): a procedure to establish the ability of the analyst to generate acceptable accuracy.

Documentation of Understanding (DOU): certifies that the analyst or technician has read and understood the procedures detailed in the Standard Operating Procedure (SOP) and will follow the SOP as written.

Document Control: the act of ensuring that documents (and revisions thereto) are proposed, reviewed for accuracy, approved for release by authorized personnel, distributed properly and controlled to ensure use of the correct version at the location where the prescribed activity is performed.

Duplicate Analyses (DUP): the analyses or measurements of the variable of interest performed identically on two sub-samples of the same sample. The results from duplicate analyses are used to evaluate analytical or measurement precision but not the precision of sampling, preservation or storage internal to the laboratory.

Field of Testing: TNI Standard's approach to accrediting laboratories by program, method and analyte. Laboratories requesting accreditation for a program-method-analyte combination or for an up-dated/improved method are required submit to only that portion of the accreditation process not previously addressed (see TNI Standard, section 1.9ff).

Laboratory Control Sample-LCS (such as laboratory fortified blank, spiked blank, or QC check sample): a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes from a source independent of the calibration standards or a material containing known and verified amounts of analytes. It is generally used to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

Limit of Detection (LOD): an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific. DoD clarification is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

Limit of Quantitation (LOQ): the minimum levels, concentrations, or quantities of a target analyte that can be reported with a specified degree of confidence. DoD clarification is the lowest concentration that produces a quantitative result within specified limits of precision and bias. The LOQ shall be at or above the concentration of the lowest initial calibration standard.

Matrix: the component or substrate that contains the analyte of interest. For purposes of batch and QC requirement determinations, the following matrix distinctions shall be used:

Aqueous: any aqueous sample excluded from the definition of Drinking Water matrix or Saline/Estuarine source. Includes surface water, groundwater, effluents, and TCLP or other extracts.

Drinking Water: any aqueous sample that has been designated a potable or potential potable water source. Saline/Estuarine: any aqueous sample from an ocean or estuary, or other salt-water source such as the Great Salt Lake. Non-aqueous Liquid: any organic liquid with <15% settleable solids.

Solids: includes soils, sediments, sludges and other matrices with >15% settleable solids.

Chemical Waste: a product or by-product of an industrial process that results in a matrix not previously defined.

Air: whole gas or vapor samples including those contained in flexible or rigid wall containers and the extracted concentrated analytes of interest from a gas or vapor that are collected with a sorbent tube, impinger solution, filter, or other device.

Biota: animal or plant tissue, consisting of entire organisms, homogenates, and/or organ or structure specific subsamples.

Matrix Spike-MS (spiked sample or fortified sample): a sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. Matrix spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.

Matrix Spike Duplicate -MSD (spiked sample or fortified sample duplicate): a second replicate matrix spike prepared in the laboratory and analyzed to obtain a measure of the precision of the recovery for each analyte.

Method Blank (MB): a sample of a matrix similar to the batch of associated samples (when available) that is free from the analytes of interest, which is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses.

Method Detection Limit (MDL): the minimum concentration of a substance (an analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

National Environmental Laboratory Accreditation Program (NELAP): the overall National Environmental Laboratory Accreditation Program.

NELAP Standards: the plan of procedures for consistently evaluating and documenting the ability of laboratories performing environmental measurements to meet nationally defined standards established by the National Environmental Laboratory Accreditation Conference.

Performance Audit: the routine comparison of independently obtained *qualitative and quantitative* measurement system data with routinely obtained data in order to evaluate the proficiency of an analyst or laboratory.

Precision: the degree to which a set of observations or measurements of the same property, obtained under similar conditions, conform to themselves; a data quality indicator. Precision is usually expressed as standard deviation, variance or range, in either absolute or relative terms.

Preservation: refrigeration and/or reagents added at the time of sample collection (or later) to maintain the chemical and/or biological integrity of the sample.

Proficiency Testing: a means of evaluating a laboratory's performance under controlled conditions relative to a given set of criteria through analysis of unknown samples provided by an external source.

Proficiency Test Sample (PT): a sample, the composition of which is unknown to the analyst and is provided to test whether the analyst/laboratory can produce analytical results within specified acceptance criteria.

Quality Assurance (QA): an integrated system of activities involving planning, quality control, quality assessment, reporting and quality improvement to ensure that a product or service meets defined standards of quality with a stated level of confidence.

Quality Control (QC): the overall system of technical activities whose purpose is to measure and control the quality of a product or service so that it meets the needs of users.

Quality Manual: a document stating the management policies, objectives, principles, organizational structure and authority, responsibilities, accountability, and implementation of an agency, organization, or laboratory, to ensure the quality of its product and the utility of its product to its users.

Quality System: a structured and documented management system describing the policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization for ensuring quality in its work processes, products (items), and services. The quality system provides the framework for planning, implementing, and assessing work performed by the organization and for carrying out required QA and QC.

Reporting Limits (RL): the maximum or minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be quantified with the confidence level required by the data user.

Reagent Blank (method reagent blank or method blank): a sample consisting of reagent(s), without the target analyte or sample matrix, introduced into the analytical procedure at the appropriate point and carried through all subsequent steps to determine the contribution of the reagents and of the involved analytical steps.

Reference Material: a material or substance one or more properties of which are sufficiently well established to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials.

Reference Method: a method of known and documented accuracy and precision issued by an organization recognized as competent to do so.

Reference Standard: a standard, generally of the highest metrological quality available at a given location, from which measurements made at that location are derived.

Replicate Analyses: the measurements of the variable of interest performed identically on two or more sub-samples of the same sample within a short time interval.

Sample Duplicate (SD): two samples taken from and representative of the same population and carried through all steps of the sampling and analytical procedures in an identical manner. Duplicate samples are used to assess variance of the total method including sampling and analysis.

Spike: a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery efficiency or for other quality control purposes.

Standard: the document describing the elements of laboratory accreditation that has been developed and established within the consensus principles of TNI Standard and meets the approval requirements of TNI Standard procedures and policies.

Traceability: the property of a result of a measurement whereby it can be related to appropriate standards, generally international or national standards, through an unbroken chain of comparisons.

Validation: the process of substantiating specified performance criteria.

Work Cell: A defined group of analysts that together perform the method analysis. Members of the group and their specific functions within the work cell must be fully documented. A "work cell" is considered to be all those individuals who see a sample through the complete process of preparation, extraction, or analysis. The entire process is completed by a group of capable individuals; each member of the work cell demonstrates capability for each individual step in the method sequence.

Appendix II

Standard Operating Procedures Directory
SGS - Dayton

Section	Standard Operating Procedure Title	Number
Air Toxics	Air Analysis by TO-15	EAT001
Air Toxics	Summa Canister Cleaning and Certification	EAT002
Air Toxics	Air Analysis of Tedlar Bag/Summa Canister by TO-3	EAT003
Air Toxics	Laboratory Analysis of Dissolved Gases in Aqueous Samples	EAT004
Air Toxics	Air Analysis by NJDEP – SRWM Low Level USEPA TO-15	EAT005
Air Toxics	Calibration of Flow Controllers	EAT006
Air Toxics	Air Analysis by TO-15 for Minnesota Department of Health	ETA007
General Chem	Percent Solids - SM2540 G-97, ASTM D4643-00	EGN007
General Chem	Anionic Surfactants As MBAS	EGN008
General Chem	Nonionic Surfactants as CTAS	EGN009
General Chem	Total Solids, 160.3, SM2540 B-97	EGN010
General Chem	Composite Sample	EGN015
General Chem	Total Dissolved Solids (Total Filterable Residue) SM2540 C-97	EGN020
General Chem	Settleable Solids, 160.5	EGN021
General Chem	Nitrate/Nitrite & Nitrate Only By Cad. Red. Analysis	EGN026
General Chem	Total Volatile Solids, 160.4	EGN030
General Chem	Chlorine, Total Residual And Free	EGN033
General Chem	Total Alkalinity, 310.1	EGN037
General Chem	Acidity (pH 8.2)	EGN044
General Chem	Bicarbonate, Carbonate, Free Carbon Dioxide	EGN045
General Chem	Viscosity	EGN067
General Chem	Total Suspended Solids (Non-Filterable Residue)	EGN087
General Chem	Chemical Oxygen Dem: Hach 8000, Aqueous Samples - Soil Modified	EGN099
General Chem	Hardness As Caco3 By Titration	EGN101
General Chem	Orthophosphate	EGN102
General Chem	Nitrogen, Nitrite -Total-Waters/Soluble-Soils	EGN103
General Chem	Turbidity, 180.1	EGN116
General Chem	Sulfide	EGN118
General Chem	Sulfite	EGN119
General Chem	Apparent Color By Visual Comparison Method	EGN120
General Chem	Specific Conductance At 25.0 C	EGN124
General Chem	Chloride	EGN131
General Chem	Turbidity for Metals Drinking Waters	EGN132
General Chem	Odor & Odor at Elevated Temp.(Threshold Odor Test)	EGN133
General Chem	Biological Oxygen Demand (5 Day BOD)	EGN134
General Chem	Winkler Titration For DO Standardization	EGN135
General Chem	Dissolved Oxygen	EGN136
General Chem	Reactive Sulfide And Reactive Cyanide	EGN137

SGS - Dayton

Section	Standard Operating Procedure Title	Number
General Chem	Ignitability	EGN140
General Chem	TCLP - Semi-volatiles/Metals Extraction	EGN141
General Chem	TCLP- Volatiles Extraction	EGN142
General Chem	Paint Filter Test	EGN143
General Chem	Cyanides Amenable To Chlorination Preparation	EGN144
General Chem	Temperature	EGN146
General Chem	Iodine, Colorimetric Analysis	EGN148
General Chem	pH by Electrode – Water	EGN151
General Chem	Salinity - SM182520B	EGN158
General Chem	pH & Corrosivity for Soils/ Solid Wastes SW486 9045	EGN200
General Chem	BTU (Gross Calorific Value)	EGN202
General Chem	Percent Sulfur	EGN203
General Chem	Bulk Density (Dry Basis)	EGN204
General Chem	Percent Ash (Dry Basis)	EGN205
General Chem	Total Organic Content	EGN206
General Chem	Cyanide (Lachat Autoanalyzer)	EGN207
General Chem	Total Chlorine ASTM D808-91	EGN208
General Chem	Total Organic Chlorine ASTM D808-91	EGN209
General Chem	Total Kjeldahl Nitrogen (Lachat Autoanalyzer)	EGN210
General Chem	Specific Gravity	EGN211
General Chem	Hexavalent Chromium (Soils)	EGN214
General Chem	Ammonia (Lachat Autoanalyzer)	EGN216
General Chem	Phenols (Lachat Autoanalyzer)	EGN217
General Chem	Total Organic Halides	EGN218
General Chem	Total Organic Halides, Solid And Oil Matrices	EGN219
General Chem	Pour Point	EGN221
General Chem	Base Sediment In Petroleum Samples	EGN222
General Chem	Water Content In Petroleum Samples	EGN223
General Chem	Ignitability, Bunsen Burner Method	EGN226
General Chem	Organic Matter (Loss on Ignition)	EGN227
General Chem	Sulfide Analysis For Reactive Sulfides	EGN228
General Chem	Hexavalent Chromium In Waters by EPA 7196a Mod.	EGN230
General Chem	Hexavalent Chromium In Waters by SM18 4500 CR D	EGN231
General Chem	Total Organic Carbon In Soil Samples	EGN233
General Chem	Total Organic Carbon In Aqueous Samples	EGN234
General Chem	pH and Corrosivity for Aqueous and Multiphasic Wastes	EGN238
General Chem	Synthetic Precipitation Leaching Procedure for Non-Volatile Anal.	EGN239
General Chem	Synthetic Precipitation Leaching Procedure for Volatile Analytes	EGN240
General Chem	Cation Exchange Capacity Of Soils (Sodium Acetate)	EGN242
General Chem	Ferrous Iron	EGN243
General Chem	Specific Gravity (For Sludges And Solids)	EGN247
General Chem	N-Hexane Extract. Mat. & Silica Gel Treatment by Gravimetric Anal.	EGN249
General Chem	Oil & Grease – Gravimetric Anal. (So & Sl) – Hexane Extraction	EGN250

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Section	Standard Operating Procedure Title	Number
General Chem	Neutral Leaching of Solid Waste Sam. Using Shake Extraction	EGN252
General Chem	Oxidation-Reduction Potential	EGN253
General Chem	Titrimetric Method For Free Carbon Dioxide	EGN255
General Chem	Total Phosphorous EPA 365.3	EGN256
General Chem	Dissolved Silica	EGN257
General Chem	Grain Size and Sieve Testing	EGN258
General Chem	Hardness By Calculation	EGN259
General Chem	Spectrophotometer Calibration Check	EGN260
General Chem	Massachusetts Sieve Test	EGN262
General Chem	Volatile Suspended Solids	EGN264
General Chem	Unburned Combustibles (Volatile Solids)	EGN266
General Chem	Particulate Matter	EGN267
General Chem	Elutriate Preparation	EGN268
General Chem	Phosphorus, Hydrolyzable	EGN271
General Chem	Perchlorate by Ion Chromatography in Groundwater and Soil	EGN272
General Chem	Percent Lipids by Gravimetric Analysis	EGN273
General Chem	Cyanide Distillation/Aqueous Samples/Micro Method	EGN275
General Chem	Cyanide Distillation/Soil Samples/Micro Method	EGN276
General Chem	Calibration of General Chemistry Distillation Tubes	EGN277
General Chem	Phenols Distillation, Water Samples	EGN279
General Chem	Phenols Micro Distillation, Soil Samples	EGN280
General Chem	Inorganic Anions Determination by ion chromatography using IC 2000	EGN281
General Chem	Leaching of Solid Waste Samples using China Leaching Procedure	EGN283
General Chem	Ammonia Distillation, Water & Solid samples	EGN284
General Chem	Weak Acid Dissociable Cyanide / Micro-Distillation Method	EGN286
General Chem	Ferrous Iron for Hexavalent Chromium Sample Characterization	EGN288
General Chem	Calibration of Coliform Collection Bottles	EGN287
General Chem	Inorganic Carbon by Calculation	EGN289
General Chem	Procedure for Homogenization of Biota Samples	EGN290
General Chem	Hexavalent Chromium in Water by Ion Chromatography	EGN291
General Chem	Hexavalent Chromium in Soils by Ion Chromatography	EGN292
General Chem	Procedure for Wand Mixer Homogenization of Soil Samples	EGN293
General Chem	Hydrogen Sulfide	EGN294
General Chem	TCLPME-Multiple Extractions Procedure	EGN295
General Chem	Modified Elutriate Preparation	EGN296
General Chem	Procedure for Particle Size Reduction (Crushing) of Solid Matrices	EGN297
General Chem	Acid Volatile Sulfides	EGN298
General Chem	Pore Water Extraction from Soils for NVOC and Metals Analysis	EGN299
General Chem	Iodide, Colorimetric Analysis	EGN300
General Chem	Percent Solids and Moisture in Soil/Solid Matrices	EGN301
General Chem	Un-Ionized Ammonia	ENG302
General Chem	Density, ASTM Definition	EGN303
General Chem	HEM by Gravimetric Analysis Using Solid Phase Extraction	EGN304
General Chem	Hexavalent Chromium on Wipe Samples	EGN305
General Chem	Modified Mehlich Buffer pH	EGN306
General Chem	Screening Procedure to test for presence of sulfide	EGN307

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Section	Standard Operating Procedure Title	Number
General Chem	Black Carbon in Soil Samples	EGN308
General Chem	Physical Appearance (Sample Description)	EGN309
General Chem	Orthophosphate	EGN310
General Chem	Oxidizer Screen	EGN311
General Chem	Hexavalent Chromium by 218.7	EGN313
General Chem	Incremental sampling method	EGN314
General Chem	Total Organic Carbon In Soil Samples by SW846 9060A	EGN315
General Chem	Procedure for Particle Size reduction (crushing) / Homgenization of solid matrices, composite samples, phase separation, resin samples	EGN316
General Chem	Inline_4500NH3 H-11	EGN317
General Chem	Determination of Inorganic Anions By Ion Chromatography using the IC2000	EGN318
General Chem	Spike Witness	EGN319
General Chem	Phenol lachat 9066	EGN320
General Chem	Waste Extraction (STLC-CA)	EGN321
General Chem	Cyanide Amenable to Chlorination (Seal analyzer)	EGN322
General Chem	Determination of inorganic anions by ion chromatography using the IC2000	EGN323
General Chem	Volatile Fatty Acids by Ion Chromatography	EGN324
Facilities Maint.	Facilities Maintenance	EFM001
Facilities Maint.	Lab Coats_Lockers	EFM002
Field Operations	Aqueous Grab Sampling Procedures	EFP001
Field Operations	Use of Automatic Wastewater Sampler	EFP002
Field Operations	Free and Total residual Chlorine	EFP003
Field Operations	Decontamination of Sampling Equipment	EFP004
Field Operations	Dissolved Oxygen	EFP005
Field Operations	Dissolved Oxygen by Winkler Titration	EFP006
Field Operations	Metal Sample Field Filtering Procedure	EFP008
Field Operations	Sampling Procedure for Monitoring Wells	EFP013
Field Operations	Subsurface Soil Sampling Procedure	EFP016
Field Operations	Residential Potable Well Sampling Procedure	EFP018
Field Operations	Potable Water Line Sampling Procedure	EFP019
Field Operations	Sampling Drinking Water Wells for Volatile Organics	EFP022
Field Operations	Documentation Requirements for Field Services	EFP028
Field Operations	Field Oxidation-Reduction Potential	EFP029
Field Operations	Turbidity, Field Test	EFP030
Field Operations	Analysis for Dissolved Oxygen by DO Probe	EFP031
Field Operations	Field pH in Water by Electrode	EFP032
Field Operations	Field Measurement of Specific Conductance and Resistivity	EFP033
Field Operations	Low Flow Monitoring Well Sampling	EFP034

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Section	Standard Operating Procedure Title	Number
Health & Safety	Contamination Avoidance Procedure	EHS001
Health & Safety	Measuring Face Velocities in Laboratory Fume Hoods	EHS002
Health & Safety	Proper Handling of Compressed Gas Cylinders	EHS003
Health & Safety	Sample and Waste Disposal (Formerly ESM003)	EHS004
Health & Safety	Handling and Management of Inorganic Wastes (Formerly EGN265)	EHS005
Health & Safety	Handling, Treatment, and Disposal of Foreign Soils	EHS006
Health & Safety	Management of Industrial Product Samples	EHS007
Health & Safety	Organic Prep Air Monitoring	EHS008
Health & Safety	Laboratory Visitor Safety Procedure	EHS009
Information Tech	Information Security & Integrity Procedure	EMI001
Information Tech	Procedures for Requesting Software or Software Revisions	EMI002
Information Tech	Development, Implementation, Delivery, & Revision of EDDs	EMI003
Information Tech	Data Systems Maintenance and Information Handling	EMI006
Metals Analysis	Mercury Analysis of Non-Potable and Potable Water Samples	EMA215
Metals Analysis	Metals by ICP-MS: EPA 200.8	EMA216
Metals Analysis	Metals by ICP-MS: SW846 6020	EMA217
Metals Analysis	Metals by ICP Atomic Emission Spectrometry using Solid State ICP	EMA222
Metals Analysis	Metals by ICP Atomic Emission Spectrometry – EPA 200.7	EMA223
Metals Analysis	Low Level Mercury by EPA 1631	EMA224
Metals Analysis	Low Level Mercury by EPA 245.7	EMA225
Metals Analysis	Metals by inductively coupled plasma-Mass Spectrometry (ICP-MS)	EMA226
Metals Analysis	Metals by Inductively coupled plasma atomic emission spectrometry (ICP) using Using Solid State ICP	EMA227
Metals Analysis	Cold Vapor Analysis of Mercury For Soil Samples	EMA228
Metals Analysis	Metals by ICP: SW846 6010D	EMA6010D
Metals Analysis	Metals by ICP-MS: SW846 6020B	EMA6020B
Metals Prep	Digestion of DW for ICP Analysis	EMP048
Metals Prep	Non-Potable Waters Digestion For ICP/Flame Analysis	EMP070
Metals Prep	Soil Digestion For ICP Analysis	EMP073
Metals Prep	Non-Potable Water Digestion for Flame/ICP (Total & Dissolved)	EMP081
Metals Prep	Digestion Of Non-Potable Waters For Total Recoverable Metals	EMP200
Metals Prep	Metals Spiking Solution and Standards Preparation and Use	EMP202
Metals Prep	Calibration of Metals Digestion Tubes	EMP203
Metals Prep	ICP and ICP/MS Analysis of TPPM-10 Filters	EMP207
Metals Prep	Digestion of Waters for Acid Extractable Metals	EMP208
Metals Prep	Lab Preservation Filtration of Metals Samples	EMP209

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Section	Standard Operating Procedure Title	Number
Microbiology	Microbiological Quality Control	EMB001
Microbiology	Coliform, Total By Colilert, SM18 9223 B	EMB002
Microbiology	Total Coliform: Membrane Filtration/Fecal Coliform Confirmation	EMB003
Microbiology	Total Plate Count SM18 9215B	EMB008
Microbiology	General Petroleum Degraders	EMB009
Microbiology	Calibration of Microbiology Coliform Collection Bottles	EMB010
Microbiology	Coliform, Fecal	EMB127
Microbiology	Water Suitability	EMB128
Organics-GC	Dibromo-3-chloropropane & 1,2,3-Trichloropropane	EGC504
Organics-GC	Pesticides & PCBs in Wastewater by EPA 608	EGC608
Organics-GC	1,2-DBE, 1,2-DB-3-CP & 1,2,3-TCP by Micro-extraction and GC	EGC8011
Organics-GC	Pesticides Analysis by SW8081	EGC8081
Organics-GC	PCB Analysis SW8082	EGC8082
Organics-GC	Herbicides by SW846 – 8151	EGC8151
Organics-GC	Herbicides by SW846 – 8151 Low Volume	EGC8151L
Organics-GC	Alcohols by Direct Aqueous Injection GC/FID SW 8015	EGCALDAI
Organics-GC	New Jersey Extractable Petroleum Hydrocarbons	EGCNJEPH
Organics-GC	Oil Identification by Gas Chromatography Fingerprint	EGCOILID
Organics-GC/MS	Volatile Organics in Drinking Water by EPA 524	EMS524
Organics-GC/MS	Volatile Organics in Wastewater by EPA 624	EMS624
Organics-GC/MS	Semi-Volatile Organics by EPA 625	EMS625
Organics-GC/MS	Volatile Organics by SW8260B	EMS8260B
Organics-GC/MS	Volatile Organics by SW8260C	EMS8260C
Organics-GC/MS	Ethylene/Propylene Glycol Analysis DAI-GC/MS(SIM)	EMS8260DAI
Organics-GC/MS	Semi-Volatile Organics by SW8270D	EMS8270D
Organics Prep	Prep of Base Neutral/Acid Extractables: Water Matrices	EOP001
Organics Prep	Extraction of Semivolatile Organics from Solids By Sonication	EOP003
Organics Prep	Preparation of Semi-volatile Extractables in Aqueous Samples with Reduced Volume	EOP004
Organics Prep	Alumina Cleanup of Organic Extracts: SW3610	EOP005
Organics Prep	Continuous Liquid/Liquid Extraction Water: SW3520C	EOP007
Organics Prep	Sulfur Cleanup of Organic Extracts: SW846 3660B	EOP011
Organics Prep	Testing & Approval Of Organics Solvents	EOP013
Organics Prep	Preparation & Use of MDL Check Solution	EOP014
Organics Prep	Preparation of Petroleum Oils & Organic Wastes for PCBs by SW 8082	EOP017
Organics Prep	Removal of Sulfur from Extracts with Tetrabutylammonium Sulfite	EOP018
Organics Prep	Soxhlet Extraction of Solids For Semi-Volatile Organics	EOP020
Organics Prep	Preparation of Petroleum Products for EPA 8081	EOP021
Organics Prep	Preparation of Petroleum Products for BNA by EPA 8270C	EOP022
Organics Prep	Calibration of Extract Vials	EOP026
Organics Prep	Spike Witness	EOP027

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Section	Standard Operating Procedure Title	Number
Organics Prep	Prep. and analysis of Bis(2-chloroethyl) ether (BCEE) in Aqueous samples with SIM and Isotope Dilution Quantitation	EOP028
Organics Prep	Preparation of Drying Agents, Ottawa Sand, and Sodium Chloride	EOP029
Organics Prep	Petroleum Oils & Org Wastes Prep for DRO SW 8015	EOP030
Organics Prep	Petroleum Oils & Org Wastes Prep for Herbicides SW 8151	EOP031
Organics Prep	Petroleum Oils & Org Wastes Prep for BNJEPH	EOP032
Organics Prep	Extractions batch scheduling & associated quality control	EOP033
Organics Prep	Microwave Extraction of Pesticides &/or PCBs from solid samples	EOP3546
Organics Prep	Alumina Column Cleanup SW3611	EOP3611
Organics Prep	Florisil Column Cleanup SW3620	EOP3620
Organics Prep	Silica Gel Cleanup SW3630	EOP3630
Organics Prep	Acid Base Partitioning SW3650	EOP3650
Organics Prep	Sulfuric Acid/Permanganate Cleanup SW3665	EOP3665
Organics Prep	Purge-And-Trap Extraction Of Aqueous Samples	EOP5030
Organics Prep	Collection/Preservation of Solids for VO Analysis: 5035	EOP5035
Organics Prep	Cleanup of Organic Extracts by Gel Permeation Chromatography	EOPGPC
Project Mgmt	Procedure For The Management Of Client Projects	EPM001
Project Mgmt	Client Specific Method Modifications	EPM002
Project Mgmt	Procedure For The Notification Of DW Exceedences	EPM003
Project Mgmt	Data Entry for Sample Log-In	EPM004
Project Mgmt	Subcontracting high volume	EPM005
Project Mgmt	Procedure for the Mangement and Reporting of Samples and Projects for FAA	EPM006
Project Mgmt	Procedure for the management of EHS Lab Chat	EPM007
Quality Assurance	Preparation, Approval, Distribution & Archiving of SOPs	EQA001
Quality Assurance	Calibration of Analytical Balances	EQA002
Quality Assurance	Calibration of Thermometers	EQA003
Quality Assurance	Calibration and Use of Auto-Pipettes	EQA004
Quality Assurance	Temperature Monitoring-	EQA005
Quality Assurance	Sample Container Cleaning & Quality Control	EQA006
Quality Assurance	Calibration of Kuderna-Danish Collection Tubes	EQA007
Quality Assurance	Preparation and Analysis of Sample Preservatives	EQA008
Quality Assurance	Personnel Training and Analyst Proficiency	EQA009
Quality Assurance	Sample Batching Procedure	EQA010
Quality Assurance	Corrective Action Procedure	EQA011
Quality Assurance	Glassware Preparation For Inorganic Lab Use	EQA012
Quality Assurance	Preparation Of Glassware For Organics Extraction	EQA013
Quality Assurance	Standards Traceability Documentation Procedure	EQA014
Quality Assurance	Template for Standard Operating Procedures	EQA016
Quality Assurance	Management/Reporting Of Proficiency Test (PT) Samples	EQA017
Quality Assurance	Creating/Distributing/Tracking Internal Chains Of Custody	EQA018
Quality Assurance	Creating New Accounts	EQA019
Quality Assurance	Creating New Projects	EQA020

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Section	Standard Operating Procedure Title	Number
Quality Assurance	Creating Product Codes	EQA021
Quality Assurance	Procedures For The Purchase Of Laboratory Supplies	EQA023
Quality Assurance	Control & Archiving Of Laboratory Documents	EQA025
Quality Assurance	Confidentiality Protection Procedures	EQA027
Quality Assurance	Quality System Review	EQA028
Quality Assurance	Contract Review	EQA029
Quality Assurance	Procedure for the Development and Application of MDLs and RLs	EQA030
Quality Assurance	Subcontracting Procedures	EQA031
Quality Assurance	Signature Authority	EQA032
Quality Assurance	Review of Inorganic Data	EQA034
Quality Assurance	Review of Organic Data	EQA035
Quality Assurance	Documentation of Equipment Maintenance	EQA036
Quality Assurance	Procedures for Accepting Departures from Laboratory Specifications	EQA037
Quality Assurance	Client Complaints Resolution Procedure	EQA038
Quality Assurance	Employee Technical Ethics Responsibilities	EQA039
Quality Assurance	Internal Audit Procedure	EQA041
Quality Assurance	Procedure for Obtaining Representative Sample Aliquots	EQA042
Quality Assurance	Procedure for Development &use of In-House Q C Criteria	EQA043
Quality Assurance	Manual Integration of Chromatographic Peaks	EQA044
Quality Assurance	Deionized Water Quality Control	EQA046
Quality Assurance	Management and Control of Change	EQA047
Quality Assurance	Laboratory Equipment Purchase and Removal From Service	EQA048
Quality Assurance	Calibration of Microliter Syringes	EQA049
Quality Assurance	Autosampler Vial Labeling Procedure (formally EOP041-01)	EQA050
Quality Assurance	pH for Volatile Samples	EQA051
Quality Assurance	Quality Control Review of Data Packages	EQA054
Quality Assurance	Procedures for Determining Method Comparability	EQA055
Quality Assurance	Refrigerator Storage Holding Blank Procedure	EQA056
Quality Assurance	Data Integrity Training Procedure	EQA057
Quality Assurance	Data Integrity Monitoring Procedure	EQA058
Quality Assurance	Procedure for Conducting Data Integrity Investigations	EQA059
Quality Assurance	Quality Control Requirements for Organics by GC/GCMS using EPA 500 & 600 Series, SW846 8000 Series and CLP Methodologies	EQA060
Quality Assurance	Procedure for the Confidential Reporting of Data Integrity Issues	EQA061
Quality Assurance	Calibration of Volumetric Dispensers for Volume Critical Processes	EQA062
Quality Assurance	Calibration of Volumetric Dispensers / Non-Critical Volumes Processes	EQA063
Quality Assurance	Glassware Preparation for use in VOA analysis	EQA064
Quality Assurance	Control of Non-Conforming Product	EQA065
Quality Assurance	Client Notification of Key Personnel Changes	EQA066
Quality Assurance	Review of Inorganic Notebooks	EQA067
Quality Assurance	Disposal of Spent Semi-Volatile Organic Extracts	EQA068
Quality Assurance	Compressed Gas Management	EQA069
Quality Assurance	Procedure for Tracking Quality Control Non-Conformances	EQA070
Quality Assurance	Procedure for the Development and Application of Experimental Method Detection Limits, limits of detection, and limits of quantitation for inorganic applications	EQA071
Quality Assurance	Procedure for Particle Size Reduction (Crushing)/Homogenization of solid matrices	EQA072

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Section	Standard Operating Procedure Title	Number
Report Generation	Report Generation–Data Package	ERG002
Sample Mgmt.	Sample Storage	ESM001
Sample Mgmt.	Chain Of Custody And Log In Procedure	ESM002
Sample Mgmt.	Temperature Maintenance Of Shipping Coolers	ESM004
Sample Mgmt.	Cooler Packaging And Shipping Procedure	ESM008
Sample Mgmt.	Procedures for Sample Couriers	ESM011
Sample Mgmt.	Summa Canister Shipment & Retrieval: NJDEP 03-X-35135	ESM012

Appendix III

Analytical Capabilities

Annual Certified Parameter List

SGS ACCUTEST INC. - DAYTON (Lab ID Number: 12129)
2235 US Hwy 130, Dayton, NJ 08810

Downloaded: December 8, 2017
https://www13.state.nj.us/DataMiner

Lab Contact Name	NANCY COLE
E-mail Address	nancy.cole@sgs.com
Contact Phone Number	732-329-0200
Fax Number	732-329-3499

Parameter	Matrix Code	Status	Approved Method	Technique	Parameter Code	Eligible to Report NJ Data	Nelap State or Country Code	Latest Certification Status Date
Acetaldehyde	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03500	Yes	NJ	3/5/2004
Acetone	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03510	Yes	NJ	12/1/2006
Acetonitrile	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03520	Yes	NJ	9/8/2016
Acetophenone	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03530	Yes	NJ	3/5/2004
Acrolein	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03540	Yes	NJ	3/5/2004
Acrylamide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03550	Yes	NJ	3/5/2004
Acrylic acid	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03560	Yes	NJ	3/5/2004
Acrylonitrile	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03570	Yes	NJ	9/8/2016
Allyl chloride	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03580	Yes	NJ	3/5/2004
Benzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03600	Yes	NJ	3/5/2004
Benzyl chloride	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03610	Yes	NJ	3/5/2004
Bis (2-chloroethyl) ether	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03620	Yes	NJ	3/5/2004
Bis (chloromethyl) ether	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03630	Yes	NJ	3/5/2004
Bromodichloromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03640	Yes	NJ	3/5/2004
Bromoform	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03650	Yes	NJ	3/5/2004
Bromomethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03660	Yes	NJ	3/5/2004
Butadiene (1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03670	Yes	NJ	3/5/2004
Butadiene (2-chloro-1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03680	Yes	NJ	3/5/2004
Butylbenzene (n-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03690	Yes	NJ	9/8/2016
Carbon disulfide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03700	Yes	NJ	3/5/2004
Carbon oxysulfide (Carbonyl sulfide)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03710	Yes	NJ	3/5/2004
Carbon tetrachloride	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03720	Yes	NJ	3/5/2004
Catechol	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03730	Yes	NJ	3/5/2004
Chloroacetic acid	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03740	Yes	NJ	3/5/2004
Chlorobenzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03750	Yes	NJ	3/5/2004
Chloroethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03760	Yes	NJ	3/5/2004
Chloroform	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03770	Yes	NJ	3/5/2004
Chloromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03780	Yes	NJ	3/5/2004
Chloromethyl methyl ether	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03790	Yes	NJ	3/5/2004
Chlorotoluene (2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03800	Yes	NJ	3/5/2004
Cresols/Cresylic acid	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03810	Yes	NJ	3/5/2004
Cyclohexane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03820	Yes	NJ	3/5/2004
Diazomethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03830	Yes	NJ	3/5/2004
Dibromo-3-chloropropane (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03840	Yes	NJ	3/5/2004
Dibromochloromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03850	Yes	NJ	2/15/2007
Dibromoethane (1,2-) (EDB)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03860	Yes	NJ	3/5/2004
Dichlorobenzene (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03870	Yes	NJ	3/5/2004
Dichlorobenzene (1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03880	Yes	NJ	3/5/2004
Dichlorobenzene (1,4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03890	Yes	NJ	3/5/2004
Dichlorodifluoromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03900	Yes	NJ	3/5/2004
Dichloroethane (1,1-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03910	Yes	NJ	3/5/2004
Dichloroethane (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03920	Yes	NJ	3/5/2004
Dichloroethene (1,1-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03930	Yes	NJ	3/5/2004
Dichloroethene (cis-1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03940	Yes	NJ	2/15/2007
Dichloroethene (trans-1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03950	Yes	NJ	3/5/2004
Dichlorofluoromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03960	Yes	NJ	3/5/2004
Dichloropropane (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03970	Yes	NJ	3/5/2004
Dichloropropene (cis-1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03980	Yes	NJ	3/5/2004
Dichloropropene (trans-1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.03990	Yes	NJ	2/15/2007
Dichlorotetrafluoroethane (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04000	Yes	NJ	3/5/2004
Diethyl sulfate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04010	Yes	NJ	3/5/2004
Dimethyl formamide (N, N-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04020	Yes	NJ	3/5/2004
Dimethyl sulfate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04040	Yes	NJ	3/5/2004
Dimethylcarbamoyl chloride	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04060	Yes	NJ	3/5/2004
Dioxane (1,4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04070	Yes	NJ	3/5/2004
Epichlorohydrin	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04080	Yes	NJ	3/5/2004
Epoxybutane (1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04090	Yes	NJ	3/5/2004
Ethanol	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04100	Yes	NJ	7/16/2008
Ethyl acetate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04110	Yes	NJ	2/15/2007
Ethyl acrylate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04120	Yes	NJ	3/5/2004
Ethylbenzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04140	Yes	NJ	3/5/2004
Ethyltoluene (4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04170	Yes	NJ	3/5/2004
Heptane (n-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04200	Yes	NJ	3/5/2004
Hexachlorobutadiene (1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04210	Yes	NJ	3/5/2004
Hexachloroethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04220	Yes	NJ	3/5/2004
Hexane (n-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04230	Yes	NJ	3/5/2004
Hexanone (2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04240	Yes	NJ	7/1/2007
Isophorone	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04250	Yes	NJ	3/5/2004
Isopropanol	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04260	Yes	NJ	7/16/2008
Isopropylbenzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04270	Yes	NJ	3/5/2004
Methyl ethyl ketone (MEK)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04290	Yes	NJ	3/5/2004
Methyl iodide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04300	Yes	NJ	3/5/2004
Methyl isobutyl ketone (MIBK)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04310	Yes	NJ	3/5/2004
Methyl isocyanate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04320	Yes	NJ	3/5/2004
Methyl methacrylate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04330	Yes	NJ	3/5/2004
Methyl tert-butyl ether	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04340	Yes	NJ	3/5/2004
Methylene chloride (Dichloromethane)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04350	Yes	NJ	3/5/2004

Methylphenol (2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04370	Yes	NJ	3/5/2004
Naphthalene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04380	Yes	NJ	7/24/2009
Nitrobenzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04390	Yes	NJ	3/5/2004
Nitropropane (2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04400	Yes	NJ	3/5/2004
N-Nitrosodimethylamine	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04410	Yes	NJ	3/5/2004
N-Nitrosomorpholine	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04420	Yes	NJ	3/5/2004
N-Nitroso-N-methylurea	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04430	Yes	NJ	3/5/2004
Phenol	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04440	Yes	NJ	3/5/2004
Phosgene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04450	Yes	NJ	3/5/2004
Propane sultone (1,3-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04460	Yes	NJ	3/5/2004
Propiolactone (beta-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04470	Yes	NJ	3/5/2004
Propionaldehyde	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04480	Yes	NJ	3/5/2004
Propylbenzene (n-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04490	Yes	NJ	9/8/2016
Propylene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04510	Yes	NJ	2/15/2007
Propylene oxide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04520	Yes	NJ	3/5/2004
Sec-butylbenzene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04540	Yes	NJ	1/18/2017
Styrene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04550	Yes	NJ	3/5/2004
Styrene oxide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04560	Yes	NJ	3/5/2004
Tert-butyl alcohol	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04570	Yes	NJ	2/15/2007
Tetrachloroethane (1,1,2,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04590	Yes	NJ	3/5/2004
Tetrachloroethene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04600	Yes	NJ	3/5/2004
Tetrahydrofuran	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04610	Yes	NJ	2/15/2007
Toluene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04620	Yes	NJ	2/15/2007
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04630	Yes	NJ	2/15/2007
Trichlorobenzene (1,2,4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04640	Yes	NJ	3/5/2004
Trichloroethane (1,1,1-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04650	Yes	NJ	3/5/2004
Trichloroethane (1,1,2-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04660	Yes	NJ	3/5/2004
Trichloroethene	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04670	Yes	NJ	3/5/2004
Trichlorofluoromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04680	Yes	NJ	7/1/2007
Trifluorochloroethene (HCFC-1113)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04696	Yes	NJ	10/18/2016
Trifluoro (1,1,2-) dichloroethane (1,2-) (HCFC-123a)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04698	Yes	NJ	10/18/2016
Trifluoromethane	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04700	Yes	NJ	3/5/2004
Trimethylbenzene (1,2,4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04710	Yes	NJ	3/5/2004
Trimethylbenzene (1,3,5-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04720	Yes	NJ	3/5/2004
Trimethylpentane (2,2,4-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04730	Yes	NJ	3/5/2004
Vinyl acetate	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04740	Yes	NJ	3/5/2004
Vinyl bromide	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04750	Yes	NJ	3/5/2004
Vinyl chloride	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04760	Yes	NJ	3/5/2004
Xylene (m-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04770	Yes	NJ	3/5/2004
Xylene (o-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04780	Yes	NJ	3/5/2004
Xylene (p-)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04790	Yes	NJ	3/5/2004
Xylenes (total)	AE	Certified	EPA TO-15	GC/MS, Canisters	AE04.04800	Yes	NJ	3/5/2004
Benzene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04910	No	NJ	11/5/2015
Benzyl chloride	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04920	No	NJ	4/16/2015
Bromodichloromethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04930	No	NJ	4/16/2015
Bromoform	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04950	No	NJ	4/16/2015
Bromomethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04960	No	NJ	4/16/2015
Butadiene (1,3-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.04970	No	NJ	4/16/2015
Carbon disulfide	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05050	No	NJ	4/16/2015
Carbon tetrachloride	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05060	No	NJ	4/16/2015
Chlorobenzene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05070	No	NJ	4/16/2015
Chloroethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05080	No	NJ	4/16/2015
Chloroform	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05090	No	NJ	4/16/2015
Chloromethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05100	No	NJ	4/16/2015
Chlorotoluene (2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05110	No	NJ	4/16/2015
Cyclohexane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05120	No	NJ	4/16/2015
Dibromochloromethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05150	No	NJ	4/16/2015
Dibromoethane (1,2-) (EDB)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05160	No	NJ	4/16/2015
Dichlorobenzene (1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05170	No	NJ	4/16/2015
Dichlorobenzene (1,3-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05180	No	NJ	4/16/2015
Dichlorobenzene (1,4-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05190	No	NJ	4/16/2015
Dichlorodifluoromethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05200	No	NJ	4/16/2015
Dichloroethane (1,1-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05210	No	NJ	4/16/2015
Dichloroethane (1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05220	No	NJ	4/16/2015
Dichloroethene (1,1-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05230	No	NJ	4/16/2015
Dichloroethene (cis-1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05340	No	NJ	4/16/2015
Dichloroethene (trans-1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05250	No	NJ	4/16/2015
Dichloropropane (1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05260	No	NJ	4/16/2015
Dichloropropene (cis-1,3-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05270	No	NJ	4/16/2015
Dichloropropene (trans-1,3-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05280	No	NJ	4/16/2015
Dichlorotetrafluoroethane (1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05290	No	NJ	4/16/2015
Dioxane (1,4-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05300	No	NJ	4/16/2015
Ethanol	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05320	No	NJ	4/16/2015
Ethyl acetate	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05350	No	NJ	4/16/2015
Ethylbenzene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05370	No	NJ	4/16/2015
Ethylbenzene (1-methyl-4-) [Ethyltoluene (4-)]	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05400	No	NJ	4/16/2015
Heptane (n-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05440	No	NJ	4/16/2015
Hexachlorobutadiene (1,3-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05450	No	NJ	4/16/2015
Hexane (n-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05460	No	NJ	4/16/2015
Hexanone (2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05470	No	NJ	4/16/2015
Isopropanol	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05520	No	NJ	4/16/2015
Isopropylbenzene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05540	No	NJ	4/16/2015
Methyl ethyl ketone (MEK)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05610	No	NJ	4/16/2015
Methyl tert-butyl ether	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05640	No	NJ	4/16/2015
Methylene chloride (Dichloromethane)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05660	No	NJ	4/16/2015
Methylnaphthalene (1-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05670	No	NJ	4/16/2015
Methylnaphthalene (2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05680	No	NJ	4/16/2015
Naphthalene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05700	No	NJ	4/16/2015

Nonane (-n)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05720	No	NJ	4/16/2015
Pentane (-n)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05820	No	NJ	4/16/2015
Propylene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05890	No	NJ	4/16/2015
Styrene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05920	No	NJ	4/16/2015
Tetrachloroethane (1,1,2,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05940	No	NJ	4/16/2015
Tetrachloroethene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05950	No	NJ	4/16/2015
Toluene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05960	No	NJ	4/16/2015
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05970	No	NJ	4/16/2015
Trichlorobenzene (1,2,4-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05980	No	NJ	4/16/2015
Trichloroethane (1,1,1-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.05990	No	NJ	4/16/2015
Trichloroethane (1,1,2-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06000	No	NJ	4/16/2015
Trichloroethene	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06010	No	NJ	4/16/2015
Trichlorofluoromethane	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06020	No	NJ	4/16/2015
Trimethylbenzene (1,2,4-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06030	No	NJ	4/16/2015
Trimethylbenzene (1,3,5-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06032	No	NJ	3/5/2005
Trimethylpentane (2,2,4-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06040	No	NJ	4/16/2015
Vinyl bromide	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06060	No	NJ	4/16/2015
Vinyl chloride	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06070	No	NJ	4/16/2015
Xylene (m- + p-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06080	No	NJ	4/16/2015
Xylene (o-)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06090	No	NJ	4/16/2015
Xylenes (total)	AE	Applied	EPA TO-17	GC/MS, Sorbent Tubes	AE04.06100	No	NJ	4/16/2015
Benzene	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06220	Yes	NJ	2/15/2007
Ethylbenzene	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06260	Yes	NJ	2/15/2007
Isopropylbenzene	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06270	Yes	NJ	2/15/2007
Methane	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06280	Yes	NJ	2/15/2007
Methyl tert-butyl ether	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06290	Yes	NJ	2/15/2007
Tert-butyl alcohol	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06300	Yes	NJ	2/15/2007
Toluene	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06320	Yes	NJ	2/15/2007
Xylenes (total)	AE	Certified	EPA TO-3	GC, FID and/or ECD, Cryogenic	AE04.06350	Yes	NJ	2/15/2007
Heterotrophic bacteria	DW	Certified	SM 9215 B	Pour Plate	DW01.00070	Yes	NJ	7/1/2004
Total coliform / E. coli	DW	Certified	SM 9223 B	ONPG-MUG (Autoanalysis Colilert	DW01.00100	Yes	NJ	8/13/2003
Alkalinity	DW	Certified	SM 2320 B	Electrometric Titration	DW03.00010	Yes	NJ	7/1/2002
Ammonia	DW	Certified	SM 4500 NH3 H	Automated Phenate	DW03.00070	Yes	NJ	7/1/2002
Chloride	DW	Certified	EPA 300.0	Ion Chromatography	DW03.00420	Yes	NJ	7/1/2002
Color	DW	Certified	SM 2120 B	Platinum-Cobalt	DW03.00550	Yes	NJ	7/1/2002
Conductivity	DW	Certified	SM 2510 B	Conductance	DW03.00590	Yes	NJ	7/1/2002
Cyanide	DW	Certified	EPA 335.4	Spectrophotometric, Distill, Semi	DW03.00720	Yes	NJ	7/1/2002
Dissolved organic carbon (DOC)	DW	Certified	SM 5310 B	High Temp. Combustion, Filtration	DW03.00760	Yes	NJ	7/1/2002
Fluoride	DW	Certified	EPA 300.0	Ion Chromatography	DW03.00860	Yes	NJ	10/31/2011
Foaming agents	DW	Certified	SM 5540 C	Methylene Blue	DW03.00910	Yes	NJ	7/1/2002
Nitrate	DW	Certified	EPA 353.2	Automated Cadmium Reduction	DW03.00940	Yes	NJ	7/1/2002
Nitrite	DW	Certified	SM 4500-NO2 B	Spectrophotometric	DW03.01300	Yes	NJ	7/1/2002
Odor	DW	Certified	SM 2150 B	Consistent Series	DW03.01320	Yes	NJ	7/1/2002
Orthophosphate	DW	Certified	SM 4500-P E	Colorimetric	DW03.01360	Yes	NJ	11/17/2017
Perchlorate	DW	Certified	EPA 314.0	Ion Chromatography	DW03.01480	Yes	NJ	6/2/2004
Residue - nonfilterable (TSS)	DW	Applied	SM 2540 D	Gravimetric, 103-105 Deg C, Post	DW03.01520	No	NJ	7/1/2017
Sulfate	DW	Certified	EPA 300.0	Ion Chromatography	DW03.01600	Yes	NJ	7/1/2002
Total dissolved solids (TDS)	DW	Certified	SM 2540 C	Gravimetric At 180	DW03.01660	Yes	NJ	7/1/2002
Total hardness	DW	Certified	SM 2340 C	Titrimetric, EDTA	DW03.01690	Yes	NJ	7/1/2004
Total organic carbon (TOC)	DW	Certified	SM 5310 B	High Temp. Combustion	DW03.01710	Yes	NJ	7/1/2002
Turbidity	DW	Certified	EPA 180.1	Nephelometric	DW03.01790	Yes	NJ	7/1/2002
Chlorine - residual	DW	Certified	SM 4500-Cl F	DPD, Ferrous Titrimetric	DW04.00020	Yes	NJ	7/1/2002
pH	DW	Certified	SM 4500-H B	Electrometric	DW04.00150	Yes	NJ	7/1/2002
Temperature	DW	Certified	SM 2550 B	Thermometric	DW04.00170	Yes	NJ	7/1/2002
Chromium (VI)	DW	Certified	EPA 218.7	Ion Chromatography	DW06.00242	Yes	NJ	1/18/2017
Mercury	DW	Certified	EPA 245.1	Manual Cold Vapor	DW06.00480	Yes	NJ	7/1/2002
Silica	DW	Certified	SM 4500-Si D (18/19th Ed.)	Molybdosilicate	DW06.00600	Yes	NJ	7/1/2004
Aluminum	DW	Certified	EPA 200.7	ICP	DW07.00001	Yes	NJ	7/1/2002
Aluminum	DW	Certified	EPA 200.8	ICP/MS	DW07.00020	Yes	NJ	5/16/2003
Antimony	DW	Certified	EPA 200.8	ICP/MS	DW07.00050	Yes	NJ	5/16/2003
Arsenic	DW	Certified	EPA 200.8	ICP/MS	DW07.00070	Yes	NJ	5/16/2003
Barium	DW	Certified	EPA 200.7	ICP	DW07.00080	Yes	NJ	7/1/2002
Barium	DW	Certified	EPA 200.8	ICP/MS	DW07.00110	Yes	NJ	5/16/2003
Beryllium	DW	Certified	EPA 200.7	ICP	DW07.00120	Yes	NJ	7/1/2002
Beryllium	DW	Certified	EPA 200.8	ICP/MS	DW07.00150	Yes	NJ	5/16/2003
Boron	DW	Certified	EPA 200.7	ICP	DW07.00160	Yes	NJ	9/8/2016
Cadmium	DW	Certified	EPA 200.7	ICP	DW07.00170	Yes	NJ	7/1/2002
Cadmium	DW	Certified	EPA 200.8	ICP/MS	DW07.00190	Yes	NJ	5/16/2003
Calcium	DW	Certified	EPA 200.7	ICP	DW07.00200	Yes	NJ	7/1/2002
Calcium-hardness	DW	Certified	EPA 200.7	Ca as Carbonate	DW07.00230	Yes	NJ	7/1/2002
Chromium	DW	Certified	EPA 200.7	ICP	DW07.00240	Yes	NJ	7/1/2002
Chromium	DW	Certified	EPA 200.8	ICP/MS	DW07.00270	Yes	NJ	5/16/2003
Cobalt	DW	Certified	EPA 200.7	ICP	DW07.00280	Yes	NJ	9/8/2016
Cobalt	DW	Certified	EPA 200.8	ICP/MS	DW07.00290	Yes	NJ	9/8/2016
Copper	DW	Certified	EPA 200.7	ICP	DW07.00300	Yes	NJ	7/1/2002
Copper	DW	Certified	EPA 200.8	ICP/MS	DW07.00330	Yes	NJ	5/16/2003
Iron	DW	Certified	EPA 200.7	ICP	DW07.00340	Yes	NJ	7/1/2002
Lead	DW	Certified	EPA 200.8	ICP/MS	DW07.00380	Yes	NJ	5/16/2003
Magnesium	DW	Certified	EPA 200.7	ICP	DW07.00400	Yes	NJ	7/1/2002
Manganese	DW	Certified	EPA 200.7	ICP	DW07.00430	Yes	NJ	7/1/2002
Manganese	DW	Certified	EPA 200.8	ICP/MS	DW07.00460	Yes	NJ	6/16/2003
Molybdenum	DW	Certified	EPA 200.7	ICP	DW07.00480	Yes	NJ	9/8/2016
Molybdenum	DW	Certified	EPA 200.8	ICP/MS	DW07.00490	Yes	NJ	9/8/2016
Nickel	DW	Certified	EPA 200.7	ICP	DW07.00500	Yes	NJ	7/1/2002
Nickel	DW	Certified	EPA 200.8	ICP/MS	DW07.00530	Yes	NJ	5/16/2003
Potassium	DW	Certified	EPA 200.7	ICP	DW07.00540	Yes	NJ	9/8/2016
Selenium	DW	Certified	EPA 200.8	ICP/MS	DW07.00560	Yes	NJ	5/16/2003
Silica	DW	Certified	EPA 200.7	ICP	DW07.00570	Yes	NJ	7/1/2002
Silver	DW	Certified	EPA 200.7	ICP	DW07.00600	Yes	NJ	7/1/2002
Silver	DW	Certified	EPA 200.8	ICP/MS	DW07.00630	Yes	NJ	5/16/2003
Sodium	DW	Certified	EPA 200.7	ICP	DW07.00640	Yes	NJ	7/1/2002
Strontium	DW	Certified	EPA 200.7	ICP	DW07.00660	Yes	NJ	9/8/2016

Thallium	DW	Certified	EPA 200.8	ICP/MS	DW07.00670	Yes	NJ	5/23/2003
Tin	DW	Certified	EPA 200.7	ICP	DW07.00680	Yes	NJ	9/8/2016
Titanium	DW	Certified	EPA 200.7	ICP	DW07.00690	Yes	NJ	9/8/2016
Total hardness	DW	Applied	EPA 200.7	Hardness By Calculation	DW07.00700	No	NJ	8/15/2017
Vanadium	DW	Certified	EPA 200.7	ICP	DW07.00750	Yes	NJ	9/8/2016
Vanadium	DW	Certified	EPA 200.8	ICP/MS	DW07.00760	Yes	NJ	9/8/2016
Zinc	DW	Certified	EPA 200.7	ICP	DW07.00770	Yes	NJ	7/1/2002
Zinc	DW	Certified	EPA 200.8	ICP/MS	DW07.00800	Yes	NJ	5/16/2003
Dibromo-3-chloropropane (1,2-)	DW	Certified	EPA 504.1	Solvent Extract, GC	DW08.00710	Yes	NJ	8/13/2003
Dibromoethane (1,2-) (EDB)	DW	Certified	EPA 504.1	Solvent Extract, GC	DW08.00720	Yes	NJ	8/13/2003
Trichloropropane (1,2,3-)	DW	Certified	EPA 504.1	Solvent Extract, GC	DW08.00730	Yes	NJ	8/13/2003
Dioxane (1,4-)	DW	Applied	EPA 522	SPE, GC/MS/SIM, Isotope Dilution	DW09.02260	No	NJ	7/1/2017
Acetone	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02270	Yes	NJ	7/1/2002
Acrylonitrile	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02280	Yes	NJ	7/1/2002
Allyl chloride	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02290	Yes	NJ	7/1/2002
Benzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02300	Yes	NJ	7/1/2002
Bromobenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02310	Yes	NJ	7/1/2002
Bromochloromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02320	Yes	NJ	7/1/2002
Bromodichloromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02330	Yes	NJ	7/1/2002
Bromoform	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02340	Yes	NJ	7/1/2002
Bromomethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02350	Yes	NJ	7/1/2002
[illegible]	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02360	Yes	NJ	7/1/2002
Butylbenzene (n-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02370	Yes	NJ	7/1/2002
Carbon disulfide	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02380	Yes	NJ	7/1/2002
Carbon tetrachloride	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02390	Yes	NJ	7/1/2002
Chloroacetonitrile	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02400	Yes	NJ	7/1/2002
Chlorobenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02410	Yes	NJ	7/1/2002
Chlorobutane (1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02420	Yes	NJ	7/1/2002
Chloroethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02430	Yes	NJ	7/1/2002
Chloroform	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02440	Yes	NJ	7/1/2002
Chloromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02450	Yes	NJ	7/1/2002
Chlorotoluene (2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02460	Yes	NJ	7/1/2002
Chlorotoluene (4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02470	Yes	NJ	7/1/2002
Dibromo-3-chloropropane (1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02480	Yes	NJ	8/13/2003
Dibromochloromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02490	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02500	Yes	NJ	7/1/2002
Dibromomethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02510	Yes	NJ	7/1/2002
Dichloro-2-butene (trans-1,4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02520	Yes	NJ	7/1/2002
Dichlorobenzene (1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02530	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02540	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02550	Yes	NJ	7/1/2002
Dichlorodifluoromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02560	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02570	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02580	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02590	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02600	Yes	NJ	7/1/2002
Dichloroethene (trans-1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02610	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02620	Yes	NJ	7/1/2002
Dichloropropane (1,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02630	Yes	NJ	7/1/2002
Dichloropropane (2,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02640	Yes	NJ	7/1/2002
Dichloropropanone (1,1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02650	Yes	NJ	7/1/2002
Dichloropropene (1,1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02660	Yes	NJ	7/1/2002
Dichloropropene (cis-1,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02670	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02680	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02690	Yes	NJ	7/1/2002
Ethyl methacrylate	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02700	Yes	NJ	7/1/2002
Ethylbenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02710	Yes	NJ	7/1/2002
Hexachlorobutadiene (1,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02720	Yes	NJ	7/1/2002
Hexachloroethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02730	Yes	NJ	7/1/2002
Hexane (n-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02740	Yes	NJ	1/18/2017
Hexanone (2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02750	Yes	NJ	7/1/2002
Isopropylbenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02760	Yes	NJ	7/1/2002
Isopropyltoluene (4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02770	Yes	NJ	7/1/2002
Methacrylonitrile	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02780	Yes	NJ	7/1/2002
Methyl acrylate	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02790	Yes	NJ	7/1/2002
Methyl iodide	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02800	Yes	NJ	7/1/2002
Methyl methacrylate	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02810	Yes	NJ	7/1/2002
Methyl tert-butyl ether	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02820	Yes	NJ	7/1/2002
Methylene chloride (Dichloromethane)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	DW09.02830	Yes	NJ	7/1/2002
Naphthalene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02840	Yes	NJ	7/1/2002
Nitrobenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02850	Yes	NJ	7/1/2002
Nitropropane (2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02860	Yes	NJ	7/1/2002
Pentachloroethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02870	Yes	NJ	7/1/2002
Pentanone (4-methyl-2-) (MIBK)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02880	Yes	NJ	7/1/2002
Propionitrile	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02890	Yes	NJ	7/1/2002
Propylbenzene (n-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02900	Yes	NJ	7/1/2002
Sec-butylbenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02910	Yes	NJ	7/1/2002
Styrene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02920	Yes	NJ	7/1/2002
Tert-butyl alcohol	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02930	Yes	NJ	7/1/2002
Tert-butylbenzene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02940	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02950	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,2,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02960	Yes	NJ	7/1/2002
Tetrachloroethene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02970	Yes	NJ	7/1/2002
Tetrahydrofuran	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02980	Yes	NJ	7/1/2002
Toluene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.02990	Yes	NJ	7/1/2002
Trichlorobenzene (1,2,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03000	Yes	NJ	7/1/2002
Trichlorobenzene (1,2,4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03010	Yes	NJ	7/1/2002
Trichloroethane (1,1,1-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03030	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03040	Yes	NJ	7/1/2002
Trichloroethene	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03050	Yes	NJ	7/1/2002
Trichlorofluoromethane	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03060	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03070	Yes	NJ	7/1/2002

Trimethylbenzene (1,2,4-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03080	Yes	NJ	7/1/2002
Trimethylbenzene (1,3,5-)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03090	Yes	NJ	7/1/2002
Vinyl chloride	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03100	Yes	NJ	7/1/2002
Xylenes (total)	DW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection,	DW09.03130	Yes	NJ	7/1/2002
Fecal coliform	NPW	Certified	SM 9222 D-97	Membrane Filter (MF), Single Step	NPW01.00300	Yes	NJ	7/1/2002
Heterotrophic plate count	NPW	Certified	SM 9215 B	Pour Plate	NPW01.00390	Yes	NJ	7/1/2002
Total coliform	NPW	Certified	SM 9222 B-97	MF Single Step or Two Step	NPW01.00530	Yes	NJ	7/1/2002
Acidity as CaCO3	NPW	Certified	SM 2310 B-11	Electrometric or Phenolphthalein	NPW03.00020	Yes	NJ	7/1/2002
Alkalinity as CaCO3	NPW	Certified	SM 2320 B-11	Electrometric or Color Titration	NPW03.00060	Yes	NJ	7/1/2002
Ammonia	NPW	Certified	SM 4500-NH3 B plus H-11	Distillation or Gas Diffusion, Semi-	NPW03.00270	Yes	NJ	7/1/2002
Biochemical oxygen demand	NPW	Certified	SM 5210 B-11	Dissolved Oxygen Depletion - Membrane	NPW03.00350	Yes	NJ	7/1/2002
Bromide	NPW	Certified	EPA 300.0	Ion Chromatography	NPW03.00540	Yes	NJ	7/1/2002
Bromide	NPW	Certified	SW-846 9056	Ion Chromatography	NPW03.00570	Yes	NJ	7/1/2002
Bromide	NPW	Certified	SW-846 9056A	Ion Chromatography	NPW03.00580	Yes	NJ	7/1/2002
Carbonaceous BOD (CBOD)	NPW	Certified	SM 5210 B-11	Diss. Oxygen Depl., Nitrif. Inhib. -	NPW03.00660	Yes	NJ	7/1/2002
Chemical oxygen demand	NPW	Certified	SM 5220 C-11	Titrimetric	NPW03.00750	Yes	NJ	8/13/2013
Chloride	NPW	Certified	SM 4500-Cl C-11	Titrimetric, Mercuric Nitrate	NPW03.00970	Yes	NJ	7/1/2002
Chloride	NPW	Certified	EPA 300.0	Ion Chromatography	NPW03.01100	Yes	NJ	7/1/2002
Chloride	NPW	Certified	SW-846 9056	Ion Chromatography	NPW03.01150	Yes	NJ	7/1/2002
Chloride	NPW	Certified	SW-846 9056A	Ion Chromatography	NPW03.01160	Yes	NJ	7/1/2002
Color	NPW	Certified	SM 2120 B-11	Colorimetric (Platinum-Cobalt)	NPW03.01370	Yes	NJ	7/1/2002
Cyanide	NPW	Certified	EPA 335.4	Distillation, Spectrophotometric (Auto)	NPW03.01530	Yes	NJ	7/1/2002
Cyanide	NPW	Certified	SW-846 9012B	Colorimetric, Automated	NPW03.01550	Yes	NJ	7/1/2002
Cyanide - amenable to Cl2	NPW	Certified	SM 4500-CN B-11 and G-11	Manual Distillation, Titrimetr/Spectro	NPW03.01660	Yes	NJ	7/1/2002
Cyanide - amenable to Cl2	NPW	Certified	SM 4500-CN C-11 and G-11	Manual Distillation, Titrimetr/Spectro	NPW03.01670	Yes	NJ	7/1/2002
Dissolved organic carbon (DOC)	NPW	Certified	SM 5310 B	Filtration and Combustion	NPW03.01750	Yes	NJ	1/23/2012
Fluoride	NPW	Certified	EPA 300.0	Ion Chromatography	NPW03.01930	Yes	NJ	7/1/2002
Fluoride	NPW	Certified	SW-846 9056	Ion Chromatography	NPW03.01970	Yes	NJ	7/1/2002
Fluoride	NPW	Certified	SW-846 9056A	Ion Chromatography	NPW03.01980	Yes	NJ	7/1/2002
Hardness - total as CaCO3	NPW	Certified	SM 2340 C-11	Titrimetric, EDTA	NPW03.02110	Yes	NJ	8/13/2003
Kjeldahl nitrogen - total	NPW	Certified	EPA 351.2	Digestion, Semiauto. Digestor,	NPW03.02470	Yes	NJ	7/1/2002
Nitrate - nitrite	NPW	Certified	EPA 353.2	Cadmium Reduction, Automated	NPW03.02790	Yes	NJ	7/1/2002
Nitrite	NPW	Certified	SM 4500-NO2 B-11	Spectrophotometric, Manual	NPW03.02960	Yes	NJ	7/1/2002
Oil & grease - hem-LL	NPW	Certified	EPA 1664A	Gravimetric, Hexane Extractable Material-	NPW03.03200	Yes	NJ	7/1/2002
Oil & grease - sgt-non polar	NPW	Certified	EPA 1664A	Gravimetric, Silica Gel Treated-Hem-LL	NPW03.03340	Yes	NJ	10/27/2003
Organic nitrogen	NPW	Certified	User Defined EPA 351.2-SM 4500 NH3 B plus G (20th ED)	Total Kjeldahl-N Minus Ammonia-N	NPW03.03400	Yes	NJ	7/1/2002
Orthophosphate	NPW	Certified	EPA 365.3	Ascorbic Acid, Manual Two Reagent	NPW03.03510	Yes	NJ	2/19/2013
Perchlorate	NPW	Certified	User Defined EPA 314.0	Ion Chromatography	NPW03.03710	No	NJ	10/6/2010
Phenols	NPW	Certified	EPA 420.4	Manual Distillation, Colorimetric Auto	NPW03.03810	Yes	NJ	7/1/2002
Phosphorus (total)	NPW	Certified	EPA 365.3	Persulfate Digestion + Manual	NPW03.03860	Yes	NJ	7/1/2002
Residue - filterable (TDS)	NPW	Certified	SM 2540 C-11	Gravimetric, 180 Degrees C	NPW03.04010	Yes	NJ	10/10/2014
Residue - nonfilterable (TSS)	NPW	Certified	SM 2540 D-11	Gravimetric, 103-105 Degrees C, Post	NPW03.04050	Yes	NJ	7/1/2002
Residue - settleable	NPW	Certified	SM 2540 F-11	Volumetric (Imhoff Cone) or Gravimetric	NPW03.04080	Yes	NJ	7/1/2002
Residue - total	NPW	Certified	SM 2540 B-11	Gravimetric, 103-105 Degrees C	NPW03.04100	Yes	NJ	7/1/2002
Residue - volatile	NPW	Certified	EPA 160.4	Gravimetric, 550 Degrees C	NPW03.04130	Yes	NJ	7/1/2002
Salinity	NPW	Certified	SM 2520 B	Electrical Conductivity	NPW03.04170	Yes	NJ	7/1/2002
Specific conductance	NPW	Certified	SM 2510 B-11	Wheatstone Bridge	NPW03.04250	Yes	NJ	11/9/2017
Specific conductance	NPW	Certified	SW-846 9050A	Wheatstone Bridge	NPW03.04270	Yes	NJ	11/9/2017
Sulfate	NPW	Certified	EPA 300.0	Ion Chromatography	NPW03.04490	Yes	NJ	7/1/2002
Sulfate	NPW	Certified	SW-846 9056	Ion Chromatography	NPW03.04540	Yes	NJ	7/1/2002
Sulfate	NPW	Certified	SW-846 9056A	Ion Chromatography	NPW03.04550	Yes	NJ	7/1/2002
Sulfides	NPW	Certified	SM 4500-S B, C plus F-11	Titrimetric, Iodine	NPW03.04650	Yes	NJ	7/1/2002
Sulfides, acid sol. & insol.	NPW	Certified	SW-846 9034	Titration	NPW03.04700	Yes	NJ	7/1/2002
Surfactants	NPW	Certified	SM 5540 C-11	Colorimetric (Methylene Blue)	NPW03.04720	Yes	NJ	7/1/2002
Total organic carbon (TOC)	NPW	Certified	SM 5310 B-11	Combustion	NPW03.04790	Yes	NJ	7/1/2002
Total organic carbon (TOC)	NPW	Certified	SW-846 9060A	Infrared Spectrometry or FID	NPW03.04880	Yes	NJ	7/1/2002
Total organic halides (TOX)	NPW	Certified	SW-846 9020B	Combustion, Titration	NPW03.04930	Yes	NJ	7/1/2002
Total, fixed, and volatile solids (SQAR)	NPW	Certified	SM 2540 G SM 18th Ed.	Gravimetric, 500 Degrees C	NPW03.04960	Yes	NJ	1/15/2009
Turbidity	NPW	Certified	EPA 180.1	Nephelometric	NPW03.05010	Yes	NJ	7/1/2002
Chlorine	NPW	Certified	SM 4500-Cl F-11	DPD-FAS	NPW04.00050	Yes	NJ	7/1/2002
Oxygen (dissolved)	NPW	Certified	SM 4500-O G-11	Membrane Electrode	NPW04.00230	Yes	NJ	7/1/2002
Oxygen (dissolved)	NPW	Certified	SM 4500-O C-11	Winkler, Azide Modification	NPW04.00310	Yes	NJ	7/1/2002
pH	NPW	Certified	SM 4500-H B-11	Electrometric	NPW04.00380	Yes	NJ	5/16/2017
pH (corrosivity)	NPW	Certified	SW-846 9040C	Aqueous, Electrometric	NPW04.00420	Yes	NJ	5/16/2017
Sulfite - SO3	NPW	Certified	SM 4500-SO3 B-11	Titrimetric, Iodine-Iodate	NPW04.00470	Yes	NJ	7/1/2002
Temperature	NPW	Certified	SM 2550 B-00	Thermometric	NPW04.00490	Yes	NJ	7/1/2002
Metals	NPW	Certified	SW-846 1311	TCLP, Toxicity Procedure, Shaker	NPW06.00020	Yes	NJ	7/1/2002
Metals	NPW	Certified	SW-846 1312	Synthetic PPT Leachate Procedure	NPW06.00030	Yes	NJ	7/1/2002
Metals, Total Rec and Dissolved	NPW	Certified	SW-846 3005A	Acid Digestion/Surface and Groundwater,	NPW06.00050	Yes	NJ	7/1/2002
Metals, Total	NPW	Certified	SW-846 3010A	Acid Digestion/Aqueous Samples, ICP,	NPW06.00060	Yes	NJ	7/1/2002
Chromium (VI)	NPW	Certified	SW-846 7196A	Colorimetric	NPW07.01000	Yes	NJ	7/1/2002
Chromium (VI)	NPW	Certified	SM 3500-Cr B-11	0.45u Filter, Colorimetric DPC	NPW07.01020	Yes	NJ	7/1/2002
Chromium (VI)	NPW	Certified	SW-846 7199	Ion Chromatography	NPW07.01050	Yes	NJ	4/21/2006
Iron, Ferrous	NPW	Certified	SM 3500-Fe B-11	Digestion, Colorimetric (Phenanthroline)	NPW07.01690	No	NJ	4/6/2010
Mercury	NPW	Certified	EPA 245.7	Cold Vapor Atomic Fluorescence	NPW07.02130	Yes	NJ	10/6/2010
Mercury	NPW	Certified	EPA 245.1	Manual Cold Vapor	NPW07.02160	Yes	NJ	7/1/2002
Mercury - liquid waste	NPW	Certified	SW-846 7470A	AA, Manual Cold Vapor	NPW07.02190	Yes	NJ	7/1/2002
Mercury	NPW	Certified	EPA 1631E	Purge & Trap Atomic Fluorescence	NPW07.02200	Yes	NJ	10/6/2010
Silica - dissolved	NPW	Certified	SM 4500-SiO2 C-11	0.45u Filtration + Colorimetric (Manual)	NPW07.02860	Yes	NJ	7/1/2002
Aluminum	NPW	Certified	SW-846 6010B	ICP	NPW08.00001	Yes	NJ	7/1/2002
Aluminum	NPW	Certified	SW-846 6010C	ICP	NPW08.00010	Yes	NJ	7/1/2002
Aluminum	NPW	Certified	SW-846 6010D	ICP	NPW08.00012	Yes	NJ	7/1/2017
Aluminum	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.00050	Yes	NJ	7/1/2002
Aluminum	NPW	Certified	SW-846 6020	ICP/MS	NPW08.00070	Yes	NJ	8/13/2003
Aluminum	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00080	Yes	NJ	8/13/2003
Aluminum	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00082	Yes	NJ	7/1/2017
Aluminum	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.00130	Yes	NJ	5/16/2003
Antimony	NPW	Certified	SW-846 6010B	ICP	NPW08.00170	Yes	NJ	7/1/2002
Antimony	NPW	Certified	SW-846 6010C	ICP	NPW08.00180	Yes	NJ	7/1/2002
Antimony	NPW	Certified	SW-846 6010D	ICP	NPW08.00182	Yes	NJ	7/1/2017
Antimony	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.00220	Yes	NJ	7/1/2002

Antimony	NPW	Certified	SW-846 6020	ICP/MS	NPW08.00240	Yes	NJ	8/13/2003
Antimony	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00250	Yes	NJ	8/13/2003
Antimony	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00252	Yes	NJ	7/1/2017
Antimony	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.00300	Yes	NJ	5/16/2003
Arsenic	NPW	Certified	SW-846 6010B	ICP	NPW08.00330	Yes	NJ	7/1/2002
Arsenic	NPW	Certified	SW-846 6010C	ICP	NPW08.00340	Yes	NJ	7/1/2002
Arsenic	NPW	Certified	SW-846 6010D	ICP	NPW08.00342	Yes	NJ	7/1/2017
Arsenic	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.00370	Yes	NJ	7/1/2002
Arsenic	NPW	Certified	SW-846 6020	ICP/MS	NPW08.00390	Yes	NJ	8/13/2003
Arsenic	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00400	Yes	NJ	8/13/2003
Arsenic	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00402	Yes	NJ	7/1/2017
Arsenic	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.00450	Yes	NJ	5/16/2003
Barium	NPW	Certified	SW-846 6010B	ICP	NPW08.00470	Yes	NJ	7/1/2002
Barium	NPW	Certified	SW-846 6010C	ICP	NPW08.00480	Yes	NJ	7/1/2002
Barium	NPW	Certified	SW-846 6010D	ICP	NPW08.00482	Yes	NJ	7/1/2017
Barium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.00510	Yes	NJ	7/1/2002
Barium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.00530	Yes	NJ	8/13/2003
Barium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00540	Yes	NJ	8/13/2003
Barium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00542	Yes	NJ	7/1/2017
Barium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.00590	Yes	NJ	5/16/2003
Beryllium	NPW	Certified	SW-846 6010B	ICP	NPW08.00630	Yes	NJ	7/1/2002
Beryllium	NPW	Certified	SW-846 6010C	ICP	NPW08.00640	Yes	NJ	7/1/2002
Beryllium	NPW	Certified	SW-846 6010D	ICP	NPW08.00642	Yes	NJ	7/1/2017
Beryllium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.00680	Yes	NJ	7/1/2002
Beryllium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.00700	Yes	NJ	8/13/2003
Beryllium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00710	Yes	NJ	8/13/2003
Beryllium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00712	Yes	NJ	7/1/2017
Beryllium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.00760	Yes	NJ	5/16/2003
Boron	NPW	Certified	SW-846 6010B	ICP	NPW08.00810	Yes	NJ	7/1/2002
Boron	NPW	Certified	SW-846 6010C	ICP	NPW08.00820	Yes	NJ	7/1/2002
Boron	NPW	Certified	SW-846 6010D	ICP	NPW08.00822	Yes	NJ	7/1/2017
Boron	NPW	Certified	EPA 200.7	ICP	NPW08.00860	Yes	NJ	7/1/2002
Boron	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.00890	Yes	NJ	7/13/2017
Boron	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.00892	Yes	NJ	7/13/2017
Boron	NPW	Certified	EPA 200.8	ICP/MS	NPW08.00940	Yes	NJ	7/13/2017
Cadmium	NPW	Certified	SW-846 6010B	ICP	NPW08.00970	Yes	NJ	7/1/2002
Cadmium	NPW	Certified	SW-846 6010C	ICP	NPW08.00980	Yes	NJ	7/1/2002
Cadmium	NPW	Certified	SW-846 6010D	ICP	NPW08.00982	Yes	NJ	7/1/2017
Cadmium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.01030	Yes	NJ	7/1/2002
Cadmium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.01050	Yes	NJ	8/13/2003
Cadmium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.01060	Yes	NJ	8/13/2003
Cadmium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.01062	Yes	NJ	7/1/2017
Cadmium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.01110	Yes	NJ	5/16/2003
Calcium	NPW	Certified	SW-846 6010B	ICP	NPW08.01160	Yes	NJ	7/1/2002
Calcium	NPW	Certified	SW-846 6010C	ICP	NPW08.01170	Yes	NJ	7/1/2002
Calcium	NPW	Certified	SW-846 6010D	ICP	NPW08.01172	Yes	NJ	7/1/2017
Calcium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.01200	Yes	NJ	7/1/2004
Calcium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.01220	Yes	NJ	7/1/2004
Calcium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.01230	Yes	NJ	7/1/2004
Calcium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.01232	Yes	NJ	7/1/2017
Calcium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.01270	Yes	NJ	7/1/2004
Chromium	NPW	Certified	SW-846 6010B	ICP	NPW08.01300	Yes	NJ	7/1/2002
Chromium	NPW	Certified	SW-846 6010C	ICP	NPW08.01310	Yes	NJ	7/1/2002
Chromium	NPW	Certified	SW-846 6010D	ICP	NPW08.01312	Yes	NJ	7/1/2017
Chromium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.01350	Yes	NJ	7/1/2002
Chromium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.01370	Yes	NJ	8/13/2003
Chromium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.01380	Yes	NJ	8/13/2003
Chromium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.01382	Yes	NJ	7/1/2017
Chromium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.01430	Yes	NJ	7/1/2002
Cobalt	NPW	Certified	SW-846 6010B	ICP	NPW08.01490	Yes	NJ	7/1/2002
Cobalt	NPW	Certified	SW-846 6010C	ICP	NPW08.01500	Yes	NJ	7/1/2002
Cobalt	NPW	Certified	SW-846 6010D	ICP	NPW08.01502	Yes	NJ	7/1/2017
Cobalt	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.01530	Yes	NJ	7/1/2002
Cobalt	NPW	Certified	SW-846 6020	ICP/MS	NPW08.01550	Yes	NJ	8/13/2003
Cobalt	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.01560	Yes	NJ	8/13/2003
Cobalt	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.01562	Yes	NJ	7/1/2017
Cobalt	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.01610	Yes	NJ	5/16/2003
Copper	NPW	Certified	SW-846 6010B	ICP	NPW08.01640	Yes	NJ	7/1/2002
Copper	NPW	Certified	SW-846 6010C	ICP	NPW08.01650	Yes	NJ	7/1/2002
Copper	NPW	Certified	SW-846 6010D	ICP	NPW08.01652	Yes	NJ	7/1/2017
Copper	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.01690	Yes	NJ	7/1/2002
Copper	NPW	Certified	SW-846 6020	ICP/MS	NPW08.01710	Yes	NJ	8/13/2003
Copper	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.01720	Yes	NJ	8/13/2003
Copper	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.01722	Yes	NJ	7/1/2017
Copper	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.01770	Yes	NJ	5/16/2003
Hardness - total as CaCO3	NPW	Certified	EPA 200.7	Ca + Mg Carbonates, ICP	NPW08.01890	Yes	NJ	7/1/2002
Iron	NPW	Certified	SW-846 6010B	ICP	NPW08.01990	Yes	NJ	7/1/2002
Iron	NPW	Certified	SW-846 6010C	ICP	NPW08.02000	Yes	NJ	7/1/2002
Iron	NPW	Certified	SW-846 6010D	ICP	NPW08.02002	Yes	NJ	7/1/2017
Iron	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02040	Yes	NJ	7/1/2002
Iron	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02060	Yes	NJ	7/1/2004
Iron	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02070	Yes	NJ	7/1/2004
Iron	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02072	Yes	NJ	7/1/2017
Iron	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02110	Yes	NJ	7/1/2004
Lead	NPW	Certified	SW-846 6010B	ICP	NPW08.02160	Yes	NJ	7/1/2002
Lead	NPW	Certified	SW-846 6010C	ICP	NPW08.02170	Yes	NJ	7/1/2002
Lead	NPW	Certified	SW-846 6010D	ICP	NPW08.02172	Yes	NJ	7/1/2017
Lead	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02210	Yes	NJ	7/1/2002
Lead	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02230	Yes	NJ	8/13/2003
Lead	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02240	Yes	NJ	8/13/2003
Lead	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02242	Yes	NJ	7/1/2017
Lead	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02290	Yes	NJ	5/16/2003
Lithium	NPW	Certified	SW-846 6010B	ICP	NPW08.02350	Yes	NJ	2/10/2017

Lithium	NPW	Certified	SW-846 6010C	ICP	NPW08.02360	Yes	NJ	2/10/2017
Lithium	NPW	Certified	SW-846 6010D	ICP	NPW08.02362	Yes	NJ	7/1/2017
Magnesium	NPW	Certified	SW-846 6010B	ICP	NPW08.02370	Yes	NJ	7/1/2002
Magnesium	NPW	Certified	SW-846 6010C	ICP	NPW08.02380	Yes	NJ	7/1/2002
Magnesium	NPW	Certified	SW-846 6010D	ICP	NPW08.02382	Yes	NJ	7/1/2017
Magnesium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02420	Yes	NJ	7/1/2002
Magnesium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02440	Yes	NJ	7/1/2004
Magnesium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02450	Yes	NJ	7/1/2004
Magnesium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02452	Yes	NJ	7/1/2017
Magnesium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02490	Yes	NJ	7/1/2004
Manganese	NPW	Certified	SW-846 6010B	ICP	NPW08.02530	Yes	NJ	7/1/2002
Manganese	NPW	Certified	SW-846 6010C	ICP	NPW08.02540	Yes	NJ	7/1/2002
Manganese	NPW	Certified	SW-846 6010D	ICP	NPW08.02542	Yes	NJ	7/1/2017
Manganese	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02580	Yes	NJ	7/1/2002
Manganese	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02600	Yes	NJ	8/13/2003
Manganese	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02610	Yes	NJ	8/13/2003
Manganese	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02612	Yes	NJ	7/1/2017
Manganese	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02660	Yes	NJ	7/1/2002
Molybdenum	NPW	Certified	SW-846 6010B	ICP	NPW08.02710	Yes	NJ	7/1/2002
Molybdenum	NPW	Certified	SW-846 6010C	ICP	NPW08.02720	Yes	NJ	7/1/2002
Molybdenum	NPW	Certified	SW-846 6010D	ICP	NPW08.02722	Yes	NJ	7/1/2017
Molybdenum	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02750	Yes	NJ	7/1/2002
Molybdenum	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02770	Yes	NJ	7/1/2004
Molybdenum	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02780	Yes	NJ	7/1/2004
Molybdenum	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02782	Yes	NJ	7/1/2017
Molybdenum	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02830	Yes	NJ	5/16/2003
Nickel	NPW	Certified	SW-846 6010B	ICP	NPW08.02860	Yes	NJ	7/1/2002
Nickel	NPW	Certified	SW-846 6010C	ICP	NPW08.02870	Yes	NJ	7/1/2002
Nickel	NPW	Certified	SW-846 6010D	ICP	NPW08.02872	Yes	NJ	7/1/2017
Nickel	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.02910	Yes	NJ	7/1/2002
Nickel	NPW	Certified	SW-846 6020	ICP/MS	NPW08.02930	Yes	NJ	8/13/2003
Nickel	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.02940	Yes	NJ	8/13/2003
Nickel	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.02942	Yes	NJ	7/1/2017
Nickel	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.02990	Yes	NJ	5/16/2003
Potassium	NPW	Certified	SW-846 6010B	ICP	NPW08.03130	Yes	NJ	7/1/2002
Potassium	NPW	Certified	SW-846 6010C	ICP	NPW08.03140	Yes	NJ	7/1/2002
Potassium	NPW	Certified	SW-846 6010D	ICP	NPW08.03142	Yes	NJ	7/1/2017
Potassium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03150	Yes	NJ	7/1/2002
Potassium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.03200	Yes	NJ	7/1/2004
Potassium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.03220	Yes	NJ	7/1/2004
Potassium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03230	Yes	NJ	7/1/2004
Potassium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03232	Yes	NJ	7/1/2017
Selenium	NPW	Certified	SW-846 6010B	ICP	NPW08.03270	Yes	NJ	7/1/2002
Selenium	NPW	Certified	SW-846 6010C	ICP	NPW08.03280	Yes	NJ	7/1/2002
Selenium	NPW	Certified	SW-846 6010D	ICP	NPW08.03282	Yes	NJ	7/1/2017
Selenium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03310	Yes	NJ	7/1/2007
Selenium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.03330	Yes	NJ	8/13/2003
Selenium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03340	Yes	NJ	8/13/2003
Selenium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03342	Yes	NJ	7/1/2017
Selenium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.03390	Yes	NJ	5/16/2003
Silica - dissolved	NPW	Certified	EPA 200.7	0.45u Filtration + ICP	NPW08.03440	Yes	NJ	7/1/2007
Silver	NPW	Certified	SW-846 6010B	ICP	NPW08.03520	Yes	NJ	7/1/2002
Silver	NPW	Certified	SW-846 6010C	ICP	NPW08.03530	Yes	NJ	7/1/2002
Silver	NPW	Certified	SW-846 6010D	ICP	NPW08.03532	Yes	NJ	7/1/2017
Silver	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03570	Yes	NJ	7/1/2002
Silver	NPW	Certified	SW-846 6020	ICP/MS	NPW08.03590	Yes	NJ	8/13/2003
Silver	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03600	Yes	NJ	8/13/2003
Silver	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03602	Yes	NJ	7/1/2017
Silver	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.03650	Yes	NJ	5/16/2003
Sodium	NPW	Certified	SW-846 6010B	ICP	NPW08.03700	Yes	NJ	7/1/2002
Sodium	NPW	Certified	SW-846 6010C	ICP	NPW08.03710	Yes	NJ	7/1/2002
Sodium	NPW	Certified	SW-846 6010D	ICP	NPW08.03712	Yes	NJ	7/1/2017
Sodium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03740	Yes	NJ	7/1/2002
Sodium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.03760	Yes	NJ	7/1/2004
Sodium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03770	Yes	NJ	7/1/2004
Sodium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03772	Yes	NJ	7/1/2017
Sodium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.03810	Yes	NJ	7/1/2005
Strontium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03840	Yes	NJ	9/8/2016
Strontium	NPW	Certified	SW-846 6010B	ICP	NPW08.03850	Yes	NJ	7/1/2002
Strontium	NPW	Certified	SW-846 6010C	ICP	NPW08.03860	Yes	NJ	7/1/2002
Strontium	NPW	Certified	SW-846 6010D	ICP	NPW08.03862	Yes	NJ	7/1/2017
Strontium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03880	Yes	NJ	7/13/2017
Strontium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03882	Yes	NJ	7/1/2017
Thallium	NPW	Certified	SW-846 6010B	ICP	NPW08.03920	Yes	NJ	7/1/2002
Thallium	NPW	Certified	SW-846 6010C	ICP	NPW08.03930	Yes	NJ	7/1/2002
Thallium	NPW	Certified	SW-846 6010D	ICP	NPW08.03932	Yes	NJ	7/1/2017
Thallium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.03950	Yes	NJ	7/1/2002
Thallium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.03970	Yes	NJ	8/13/2003
Thallium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.03980	Yes	NJ	8/13/2003
Thallium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.03982	Yes	NJ	7/1/2017
Thallium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.04030	Yes	NJ	5/16/2003
Tin	NPW	Certified	SW-846 6010B	ICP	NPW08.04100	Yes	NJ	7/1/2002
Tin	NPW	Certified	SW-846 6010C	ICP	NPW08.04110	Yes	NJ	7/1/2002
Tin	NPW	Certified	SW-846 6010D	ICP	NPW08.04112	Yes	NJ	7/1/2017
Tin	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.04130	Yes	NJ	7/1/2002
Tin	NPW	Certified	SW-846 6020	ICP/MS	NPW08.04140	Yes	NJ	7/1/2004
Tin	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.04150	Yes	NJ	7/1/2004
Tin	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.04152	Yes	NJ	7/1/2017
Tin	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.04190	Yes	NJ	5/16/2003
Titanium	NPW	Certified	SW-846 6010B	ICP	NPW08.04200	Yes	NJ	7/1/2007
Titanium	NPW	Certified	SW-846 6010C	ICP	NPW08.04210	Yes	NJ	7/1/2007
Titanium	NPW	Certified	SW-846 6010D	ICP	NPW08.04212	Yes	NJ	7/1/2017
Titanium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.04220	Yes	NJ	7/1/2002

Titanium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.04240	Yes	NJ	7/13/2017
Titanium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.04242	Yes	NJ	7/1/2017
Titanium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.04280	Yes	NJ	5/16/2003
Vanadium	NPW	Certified	SW-846 6010B	ICP	NPW08.04380	Yes	NJ	7/1/2002
Vanadium	NPW	Certified	SW-846 6010C	ICP	NPW08.04390	Yes	NJ	7/1/2002
Vanadium	NPW	Certified	SW-846 6010D	ICP	NPW08.04392	Yes	NJ	7/1/2017
Vanadium	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.04430	Yes	NJ	7/1/2002
Vanadium	NPW	Certified	SW-846 6020	ICP/MS	NPW08.04450	Yes	NJ	8/13/2003
Vanadium	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.04460	Yes	NJ	8/13/2003
Vanadium	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.04462	Yes	NJ	7/1/2017
Vanadium	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.04510	Yes	NJ	5/16/2003
Zinc	NPW	Certified	SW-846 6010B	ICP	NPW08.04560	Yes	NJ	7/1/2002
Zinc	NPW	Certified	SW-846 6010C	ICP	NPW08.04570	Yes	NJ	7/1/2002
Zinc	NPW	Certified	SW-846 6010D	ICP	NPW08.04572	Yes	NJ	7/1/2017
Zinc	NPW	Certified	EPA 200.7	Digestion, ICP	NPW08.04610	Yes	NJ	7/1/2002
Zinc	NPW	Certified	SW-846 6020	ICP/MS	NPW08.04630	Yes	NJ	8/13/2003
Zinc	NPW	Certified	SW-846 6020A	ICP/MS	NPW08.04640	Yes	NJ	8/13/2003
Zinc	NPW	Certified	SW-846 6020B	ICP/MS	NPW08.04642	Yes	NJ	7/1/2017
Zinc	NPW	Certified	EPA 200.8	Digestion, ICP/MS	NPW08.04690	Yes	NJ	5/16/2003
Zirconium	NPW	Certified	SW-846 6010B	ICP	NPW08.04740	Yes	NJ	2/10/2017
Zirconium	NPW	Certified	SW-846 6010C	ICP	NPW08.04742	Yes	NJ	2/10/2017
Zirconium	NPW	Certified	SW-846 6010D	ICP	NPW08.04744	Yes	NJ	7/1/2017
Organics	NPW	Certified	SW-846 1312	Synthetic PPT Leachate Procedure	NPW09.00040	Yes	NJ	7/1/2002
Semivolatile organics	NPW	Certified	SW-846 1311	TCLP, Toxicity Procedure, Shaker	NPW09.00080	Yes	NJ	7/1/2002
Semivolatile organics	NPW	Certified	SW-846 3510C	Separatory Funnel Extraction	NPW09.00090	Yes	NJ	7/1/2002
Semivolatile organics	NPW	Certified	SW-846 3520C	Continuous Liquid-Liquid Extraction	NPW09.00110	Yes	NJ	7/1/2002
Volatile organics	NPW	Certified	SW-846 1311	TCLP, Toxicity Procedure, ZHE	NPW09.00290	Yes	NJ	7/1/2002
Volatile organics	NPW	Certified	SW-846 5030B	Purge & Trap Aqueous	NPW09.00330	Yes	NJ	7/1/2002
Volatile organics	NPW	Certified	SW-846 5030C	Purge & Trap Aqueous	NPW09.00340	Yes	NJ	7/1/2017
Acrolein	NPW	Certified	EPA 603	Purge & Trap, GC (FID)	NPW10.03010	Yes	NJ	7/1/2004
Acrylonitrile	NPW	Certified	EPA 603	Purge & Trap, GC (FID)	NPW10.03020	Yes	NJ	7/1/2005
Aldrin	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03360	Yes	NJ	7/1/2002
Alpha BHC	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03370	Yes	NJ	7/1/2002
Beta BHC	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03380	Yes	NJ	7/1/2002
Chlordane	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03390	Yes	NJ	7/1/2002
Chlordane (alpha) (cis-)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03400	Yes	NJ	12/1/2006
Chlordane (gamma) (trans-)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03410	Yes	NJ	12/1/2006
DDD (4,4'-)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03430	Yes	NJ	7/1/2002
DDE (4,4'-)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03440	Yes	NJ	7/1/2002
DDT (4,4'-)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03450	Yes	NJ	7/1/2002
Delta BHC	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03460	Yes	NJ	7/1/2002
Dieldrin	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03470	Yes	NJ	7/1/2002
Endosulfan I	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03480	Yes	NJ	7/1/2002
Endosulfan II	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03490	Yes	NJ	7/1/2002
Endosulfan sulfate	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03500	Yes	NJ	7/1/2002
Endrin	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03510	Yes	NJ	7/1/2002
Endrin aldehyde	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03520	Yes	NJ	7/1/2002
Endrin ketone	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03530	Yes	NJ	7/1/2002
Heptachlor	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03550	Yes	NJ	7/1/2002
Heptachlor epoxide	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03560	Yes	NJ	7/1/2002
Lindane (gamma BHC)	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03570	Yes	NJ	7/1/2002
PCB 1016	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03590	Yes	NJ	7/1/2002
PCB 1221	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03600	Yes	NJ	7/1/2002
PCB 1232	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03610	Yes	NJ	7/1/2002
PCB 1242	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03620	Yes	NJ	7/1/2002
PCB 1248	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03630	Yes	NJ	7/1/2002
PCB 1254	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03640	Yes	NJ	7/1/2002
PCB 1260	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03650	Yes	NJ	7/1/2002
Toxaphene	NPW	Certified	EPA 608	Extract/GC (ECD)	NPW10.03660	Yes	NJ	7/1/2002
Butane	NPW	Certified	Other J. Chrom. Sci. RSK-175	GC, Headspace, FID	NPW10.06000	Yes	NJ	9/8/2016
Ethane	NPW	Certified	Other J. Chrom. Sci. RSK-175	GC, Headspace, FID	NPW10.06010	Yes	NJ	7/1/2007
Ethene	NPW	Certified	Other J. Chrom. Sci. RSK-175	GC, Headspace, FID	NPW10.06020	Yes	NJ	7/1/2007
Methane	NPW	Certified	Other J. Chrom. Sci. RSK-175	GC, Headspace, FID	NPW10.06040	Yes	NJ	7/1/2007
Propane	NPW	Certified	Other J. Chrom. Sci. RSK-175	GC, Headspace, FID	NPW10.06050	Yes	NJ	7/1/2007
Extractable Petroleum Hydrocarbons	NPW	Certified	Other NJDEP EPH 10/08, Rev. 3	Extraction, GC, FID	NPW10.06060	Yes	NJ	8/27/2010
Petroleum Organics	NPW	Certified	Other NJ-OQA-QAM-025, Rev. 7	Extraction, GC, FID	NPW10.06070	Yes	NJ	3/19/2007
Dibromo-3-chloropropane (1,2-)	NPW	Certified	SW-846 8011	Microextraction, GC, ECD	NPW10.07680	Yes	NJ	8/13/2003
Dibromoethane (1,2-) (EDB)	NPW	Certified	SW-846 8011	Microextraction, GC, ECD	NPW10.07690	Yes	NJ	8/13/2003
Trichloropropane (1,2,3-)	NPW	Certified	SW-846 8011	Microextraction, GC, ECD	NPW10.07700	Yes	NJ	8/13/2003
Butanol (1-)	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07750	Yes	NJ	2/16/2011
Diesel range organic	NPW	Certified	SW-846 8015B	Extraction, GC, FID	NPW10.07770	Yes	NJ	7/1/2002
Ethyl alcohol	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07790	Yes	NJ	7/1/2005
Gasoline range organic	NPW	Certified	SW-846 8015B	GC P&T, FID	NPW10.07820	Yes	NJ	7/1/2002
Iso-butyl alcohol	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07830	Yes	NJ	7/1/2002
Isopropyl alcohol	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07840	Yes	NJ	7/1/2005
Methyl alcohol (Methanol)	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07850	Yes	NJ	8/13/2003
Propyl Alcohol (n-)	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07910	Yes	NJ	2/16/2011
Tert-butyl alcohol	NPW	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	NPW10.07940	Yes	NJ	7/1/2002
Butanol (1-)	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08010	Yes	NJ	2/16/2011
Diesel range organic	NPW	Certified	SW-846 8015C	Extraction, GC, FID	NPW10.08030	Yes	NJ	7/1/2002
Ethyl alcohol	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08060	Yes	NJ	7/1/2005
Ethylene glycol	NPW	Applied	SW-846 8015C	GC, Direct Injection, FID	NPW10.08070	No	NJ	10/7/2014
Gasoline range organic	NPW	Certified	SW-846 8015C	GC P&T, FID	NPW10.08100	Yes	NJ	7/1/2002
Iso-butyl alcohol	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08120	Yes	NJ	7/1/2002
Isopropyl alcohol	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08130	Yes	NJ	7/1/2005
Methyl alcohol (Methanol)	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08140	Yes	NJ	8/13/2003
Propyl Alcohol (n-)	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08210	Yes	NJ	2/16/2011
Propylene glycol	NPW	Applied	SW-846 8015C	GC, Direct Injection, FID	NPW10.08220	No	NJ	10/7/2014
Tert-butyl alcohol	NPW	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	NPW10.08260	Yes	NJ	7/1/2002
Butanol (1-)	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08330	Yes	NJ	7/1/2017
Diesel range organic	NPW	Certified	SW-846 8015D	Extraction, GC, FID	NPW10.08360	Yes	NJ	7/1/2017
Ethyl alcohol	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08400	Yes	NJ	7/1/2017

Gasoline range organic	NPW	Certified	SW-846 8015D	GC P&T, FID	NPW10.08440	Yes	NJ	7/1/2017
Iso-butyl alcohol	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08460	Yes	NJ	7/1/2017
Isopropyl alcohol	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08470	Yes	NJ	7/1/2017
Methyl alcohol (Methanol)	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08480	Yes	NJ	7/1/2017
Propyl Alcohol (n-)	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08550	Yes	NJ	7/1/2017
Tert-butyl alcohol	NPW	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	NPW10.08600	Yes	NJ	7/1/2017
Aldrin	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09480	Yes	NJ	7/1/2002
Alpha BHC	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09490	Yes	NJ	7/1/2002
Beta BHC	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09510	Yes	NJ	7/1/2002
Chlordane (alpha) (cis-)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09520	Yes	NJ	7/1/2002
Chlordane (gamma) (trans-)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09530	Yes	NJ	7/1/2002
Chlordane (technical)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09540	Yes	NJ	7/1/2002
DDD (4,4'-)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09610	Yes	NJ	7/1/2002
DDE (4,4'-)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09620	Yes	NJ	7/1/2002
DDT (4,4'-)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09630	Yes	NJ	7/1/2002
Delta BHC	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09640	Yes	NJ	7/1/2002
Dieldrin	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09650	Yes	NJ	7/1/2002
Endosulfan I	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09660	Yes	NJ	7/1/2002
Endosulfan II	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09670	Yes	NJ	7/1/2002
Endosulfan sulfate	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09680	Yes	NJ	7/1/2002
Endrin	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09690	Yes	NJ	7/1/2002
Endrin aldehyde	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09700	Yes	NJ	7/1/2002
Endrin ketone	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09710	Yes	NJ	7/1/2002
Heptachlor	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09730	Yes	NJ	7/1/2002
Heptachlor epoxide	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09740	Yes	NJ	7/1/2002
Lindane (gamma BHC)	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09770	Yes	NJ	7/1/2002
Methoxychlor	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09780	Yes	NJ	7/1/2002
Mirex	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09810	Yes	NJ	4/3/2008
Toxaphene	NPW	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	NPW10.09850	Yes	NJ	7/1/2002
Alachlor	NPW	Applied	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09870	No	NJ	7/1/2017
Alachlor	SCM	Applied	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09870	No	NJ	7/1/2017
Aldrin	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09880	Yes	NJ	7/1/2002
Alpha BHC	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09890	Yes	NJ	7/1/2002
Beta BHC	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09910	Yes	NJ	7/1/2002
Chlordane (alpha) (cis-)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09920	Yes	NJ	7/1/2002
Chlordane (gamma) (trans-)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09930	Yes	NJ	7/1/2002
Chlordane (technical)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.09940	Yes	NJ	7/1/2002
DDD (4,4'-)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10010	Yes	NJ	7/1/2002
DDE (4,4'-)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10020	Yes	NJ	7/1/2002
DDT (4,4'-)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10030	Yes	NJ	7/1/2002
Delta BHC	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10040	Yes	NJ	7/1/2002
Dieldrin	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10050	Yes	NJ	7/1/2002
Endosulfan I	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10060	Yes	NJ	7/1/2002
Endosulfan II	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10070	Yes	NJ	7/1/2002
Endosulfan sulfate	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10080	Yes	NJ	7/1/2002
Endrin	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10090	Yes	NJ	7/1/2002
Endrin aldehyde	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10100	Yes	NJ	7/1/2002
Endrin ketone	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10110	Yes	NJ	7/1/2002
Heptachlor	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10130	Yes	NJ	7/1/2002
Heptachlor epoxide	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10140	Yes	NJ	7/1/2002
Hexachlorobenzene	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10150	Yes	NJ	9/21/2017
Lindane (gamma BHC)	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10170	Yes	NJ	7/1/2002
Methoxychlor	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10180	Yes	NJ	7/1/2002
Mirex	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10210	Yes	NJ	4/3/2008
Toxaphene	NPW	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	NPW10.10250	Yes	NJ	7/1/2002
PCB 1016	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10480	Yes	NJ	7/1/2002
PCB 1221	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10490	Yes	NJ	7/1/2002
PCB 1232	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10500	Yes	NJ	7/1/2002
PCB 1242	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10510	Yes	NJ	7/1/2002
PCB 1248	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10520	Yes	NJ	7/1/2002
PCB 1254	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10530	Yes	NJ	7/1/2002
PCB 1260	NPW	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	NPW10.10540	Yes	NJ	7/1/2002
PCB 1016	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10780	Yes	NJ	7/1/2002
PCB 1221	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10790	Yes	NJ	7/1/2002
PCB 1232	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10800	Yes	NJ	7/1/2002
PCB 1242	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10810	Yes	NJ	7/1/2002
PCB 1248	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10820	Yes	NJ	7/1/2002
PCB 1254	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10830	Yes	NJ	7/1/2002
PCB 1260	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10840	Yes	NJ	7/1/2002
PCB 1262	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10850	Yes	NJ	10/12/2011
PCB 1268	NPW	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	NPW10.10860	Yes	NJ	10/12/2011
D (2,4-)	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12230	Yes	NJ	7/1/2002
Dalapon	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12240	Yes	NJ	7/1/2002
DB (2,4-)	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12250	Yes	NJ	8/13/2003
Dicamba	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12270	Yes	NJ	7/1/2002
Dichlorprop	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12290	Yes	NJ	8/13/2003
Dinoseb	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12300	Yes	NJ	7/1/2002
MCPA	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12320	Yes	NJ	8/13/2003
MCPP	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12330	Yes	NJ	8/13/2003
Pentachlorophenol	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12350	Yes	NJ	8/13/2003
Picloram	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12360	Yes	NJ	7/1/2002
T (2,4,5-)	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12370	Yes	NJ	7/1/2002
TP (2,4,5-) (Silvex)	NPW	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	NPW10.12380	Yes	NJ	7/1/2002
Methoxychlor	NPW	Certified	User Defined EPA 608	Extract/GC (ECD)	NPW10.14320	Yes	NJ	7/1/2002
Beta BHC	NPW	Certified	User Defined EPA 608	GC	NPW10.14520	Yes	NJ	7/1/2002
Chlordane	NPW	Certified	User Defined EPA 608	GC	NPW10.14530	Yes	NJ	7/1/2002
Delta BHC	NPW	Certified	User Defined EPA 608	GC	NPW10.14570	Yes	NJ	7/1/2002
Endosulfan sulfate	NPW	Certified	User Defined EPA 608	GC	NPW10.14630	Yes	NJ	7/1/2002
Endrin	NPW	Certified	User Defined EPA 608	GC	NPW10.14640	Yes	NJ	7/1/2002
Methoxychlor	NPW	Certified	User Defined EPA 608	GC	NPW10.14700	Yes	NJ	7/1/2002
Simazine	NPW	Certified	User Defined EPA 608	GC	NPW10.14780	Yes	NJ	5/17/2006
Toxaphene	NPW	Certified	User Defined EPA 608	GC	NPW10.14800	Yes	NJ	7/1/2002
Acetone	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07870	Yes	NJ	8/13/2003

Acetonitrile	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07880	Yes	NJ	9/8/2016
Acrolein	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07890	Yes	NJ	7/1/2005
Acrylonitrile	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07900	Yes	NJ	7/1/2005
Allyl chloride	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07910	Yes	NJ	9/8/2016
Amyl acetate (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07920	Yes	NJ	9/8/2016
Amyl alcohol (n-)	NPW	Applied	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07930	No	NJ	8/13/2003
Benzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07940	Yes	NJ	7/1/2002
Bromobenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07950	Yes	NJ	9/8/2016
Bromochloromethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07960	Yes	NJ	9/8/2016
Bromodichloromethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07970	Yes	NJ	7/1/2002
Bromoform	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.07990	Yes	NJ	7/1/2002
Bromomethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08000	Yes	NJ	7/1/2002
Butanol (1-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08020	Yes	NJ	9/8/2016
[illegible]	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08030	Yes	NJ	7/1/2005
Butyl acetate (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08040	Yes	NJ	8/13/2003
Butylbenzene (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08070	Yes	NJ	9/8/2016
Carbon disulfide	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08080	Yes	NJ	7/1/2005
Carbon tetrachloride	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08090	Yes	NJ	7/1/2002
Chlorobenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08100	Yes	NJ	7/1/2002
Chloroethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08110	Yes	NJ	7/1/2002
Chloroethyl vinyl ether (2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08120	Yes	NJ	7/1/2002
Chloroform	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08130	Yes	NJ	7/1/2002
Chloromethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08140	Yes	NJ	7/1/2002
Chlorotoluene (2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08150	Yes	NJ	9/8/2016
Chlorotoluene (4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08160	Yes	NJ	9/8/2016
Cyclohexane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08180	Yes	NJ	9/8/2016
Cyclohexanone	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08190	Yes	NJ	9/8/2016
Dibromo-3-chloropropane (1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08200	Yes	NJ	9/8/2016
Dibromochloromethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08210	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08220	Yes	NJ	7/1/2015
Dibromomethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08230	Yes	NJ	9/8/2016
Dichloro-2-butene (trans-1,4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08250	Yes	NJ	9/8/2016
Dichlorobenzene (1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08260	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08270	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08280	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08290	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08300	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08310	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08320	Yes	NJ	7/1/2005
Dichloroethene (trans-1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08330	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08340	Yes	NJ	7/1/2002
Dichloropropane (1,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08350	Yes	NJ	9/8/2016
Dichloropropane (2,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08360	Yes	NJ	7/26/2013
Dichloropropene (1,1-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08370	Yes	NJ	9/8/2016
Dichloropropene (cis-1,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08380	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08390	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08400	Yes	NJ	7/1/2007
Diisopropyl Ether [DIPE]	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08410	Yes	NJ	7/1/2007
Dioxane (1,4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08420	Yes	NJ	7/1/2005
Ethyl acetate	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08440	Yes	NJ	8/13/2003
Ethyl methacrylate	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08450	Yes	NJ	9/8/2016
Ethylbenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08460	Yes	NJ	7/1/2002
Ethyl-tert-butyl Ether [ETBE]	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08470	Yes	NJ	12/1/2006
Heptane (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08480	Yes	NJ	8/13/2003
Hexachlorobutadiene (1,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08490	Yes	NJ	9/8/2016
Hexane (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08500	Yes	NJ	8/13/2003
Hexanone (2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08510	Yes	NJ	7/1/2005
Isobutyraldehyde	NPW	Applied	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08530	No	NJ	8/13/2003
Isopropanol	NPW	Applied	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08540	No	NJ	8/13/2003
Isopropyl acetate	NPW	Applied	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08550	No	NJ	8/13/2003
Isopropyl ether	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08560	Yes	NJ	10/27/2003
Isopropylbenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08570	Yes	NJ	7/1/2007
Isopropyltoluene (4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08580	Yes	NJ	9/8/2016
Methyl acetate	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08600	Yes	NJ	9/8/2016
Methyl formate	NPW	Applied	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08610	No	NJ	8/13/2003
Methyl Iodide	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08620	Yes	NJ	9/8/2016
Methyl Isobutyl ketone (MIBK)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08630	Yes	NJ	10/27/2003
Methyl methacrylate	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08640	Yes	NJ	9/8/2016
Methyl tert-butyl ether	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08650	Yes	NJ	7/1/2002
Methylcyclohexane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08660	Yes	NJ	9/8/2016
Methylene chloride (Dichloromethane)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08670	Yes	NJ	7/1/2002
Nitropropane (2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08680	Yes	NJ	9/8/2016
Propylbenzene (n-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08720	Yes	NJ	9/8/2016
Sec-butylbenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08730	Yes	NJ	9/8/2016
Styrene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08740	Yes	NJ	7/1/2002
tert-Amylmethyl ether [TAME]	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08750	Yes	NJ	12/1/2006
Tert-butyl alcohol	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08770	Yes	NJ	7/1/2002
Tert-butylbenzene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08780	Yes	NJ	9/8/2016
Tetrachloroethane (1,1,1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08790	Yes	NJ	9/8/2016
Tetrachloroethane (1,1,2,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08800	Yes	NJ	7/1/2002
Tetrachloroethene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08810	Yes	NJ	7/1/2002
Tetrahydrofuran	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08820	Yes	NJ	8/13/2003
Toluene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08830	Yes	NJ	7/1/2002
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08840	Yes	NJ	7/1/2005
Trichlorobenzene (1,2,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08850	Yes	NJ	9/8/2016
Trichloroethane (1,1,1-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08860	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08870	Yes	NJ	7/1/2002
Trichloroethene	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08880	Yes	NJ	7/1/2002
Trichlorofluoromethane	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08890	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08900	Yes	NJ	9/8/2016
Trimethylbenzene (1,2,4-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08920	Yes	NJ	7/1/2005

Trimethylbenzene (1,3,5-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08930	Yes	NJ	7/1/2005
Vinyl acetate	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08940	Yes	NJ	7/1/2007
Vinyl chloride	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08950	Yes	NJ	7/1/2002
Xylene (m- + p-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08960	Yes	NJ	7/1/2005
Xylene (o-)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.08980	Yes	NJ	7/1/2005
Xylenes (total)	NPW	Certified	EPA 624	GC/MS, P & T, Capillary Column	NPW11.09000	Yes	NJ	7/1/2002
Acenaphthene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09010	Yes	NJ	7/1/2002
Acenaphthylene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09020	Yes	NJ	7/1/2002
Acetophenone	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09030	Yes	NJ	7/1/2002
Acetylaminofluorene (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09040	Yes	NJ	9/8/2016
Alpha - terpineol	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09050	Yes	NJ	8/13/2003
Aminobiphenyl (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09060	Yes	NJ	9/8/2016
Aniline	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09070	Yes	NJ	8/13/2003
Anthracene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09080	Yes	NJ	7/1/2002
Aramite	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09090	Yes	NJ	9/8/2016
Benzidine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09110	Yes	NJ	7/1/2002
Benzo(a)anthracene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09120	Yes	NJ	7/1/2002
Benzo(a)pyrene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09130	Yes	NJ	7/1/2002
Benzo(b)fluoranthene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09140	Yes	NJ	7/1/2002
Benzo(ghi)perylene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09150	Yes	NJ	7/1/2002
Benzo(k)fluoranthene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09170	Yes	NJ	7/1/2002
Benzoic acid	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09180	Yes	NJ	7/1/2002
Benzyl alcohol	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09190	Yes	NJ	9/8/2016
Bis (2-chloroethoxy) methane	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09210	Yes	NJ	7/1/2002
Bis (2-chloroethyl) ether	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09220	Yes	NJ	7/1/2002
Bis(2-chloroisopropyl)ether]2,2'-oxybis(1-chloropropane)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09230	Yes	NJ	7/1/2002
Bis (2-ethylhexyl) phthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09240	Yes	NJ	7/1/2002
Bromophenyl-phenyl ether (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09250	Yes	NJ	7/1/2002
Butylbenzylphthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09260	Yes	NJ	7/1/2002
Carbazole	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09270	Yes	NJ	7/1/2002
Chloroaniline (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09280	Yes	NJ	7/1/2002
Chlorobenzilate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09290	Yes	NJ	9/8/2016
Chloronaphthalene (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09310	Yes	NJ	7/1/2002
Chlorophenol (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09320	Yes	NJ	7/1/2002
Chlorophenyl-phenyl ether (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09330	Yes	NJ	7/1/2002
Chrysene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09340	Yes	NJ	7/1/2002
Decane (n-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09350	Yes	NJ	8/13/2003
Dibenz(a,h)acridine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09380	Yes	NJ	12/1/2006
Dibenzo(a,h)anthracene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09410	Yes	NJ	7/1/2002
Dibenzofuran	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09440	Yes	NJ	7/1/2002
Dichloroaniline (2,3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09450	Yes	NJ	8/13/2003
Dichlorobenzidine (3,3'-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09460	Yes	NJ	7/1/2002
Dichlorophenol (2,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09470	Yes	NJ	7/1/2002
Dichlorophenol (2,6-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09480	Yes	NJ	9/8/2016
Diethyl phthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09490	Yes	NJ	7/1/2002
Dimethoate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09500	Yes	NJ	9/8/2016
Dimethyl benzidine (3,3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09510	Yes	NJ	9/8/2016
Dimethyl phthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09520	Yes	NJ	7/1/2002
Dimethylaminoazobenzene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09530	Yes	NJ	9/8/2016
[redacted]	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09540	Yes	NJ	12/1/2006
Dimethylphenol (2,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09550	Yes	NJ	7/1/2002
Di-n-butyl phthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09560	Yes	NJ	7/1/2002
Dinitrobenzene (1,3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09570	Yes	NJ	9/8/2016
Dinitrophenol (2,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09580	Yes	NJ	7/1/2002
Dinitrophenol (2-methyl-4,6-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09590	Yes	NJ	7/1/2002
Dinitrotoluene (2,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09600	Yes	NJ	7/1/2002
Dinitrotoluene (2,6-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09610	Yes	NJ	7/1/2002
Di-n-octyl phthalate	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09620	Yes	NJ	7/1/2002
Diphenylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09630	Yes	NJ	9/8/2016
Diphenylhydrazine (1,2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09640	Yes	NJ	7/1/2004
Famphur	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09680	Yes	NJ	9/8/2016
Fluoranthene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09690	Yes	NJ	7/1/2002
Fluorene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09700	Yes	NJ	7/1/2002
Hexachlorobenzene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09710	Yes	NJ	7/1/2002
Hexachlorobutadiene (1,3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09720	Yes	NJ	7/1/2002
Hexachlorocyclopentadiene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09730	Yes	NJ	7/1/2002
Hexachloroethane	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09740	Yes	NJ	7/1/2002
Hexachloropropene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09760	Yes	NJ	9/8/2016
Indeno(1,2,3-cd)pyrene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09780	Yes	NJ	7/1/2002
Isophorone	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09790	Yes	NJ	8/13/2003
Methylnaphthalene (1-)	NPW	Applied	EPA 625	Extract, GC/MS	NPW11.09799	No	NJ	7/1/2016
Kepone	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09820	Yes	NJ	9/8/2016
Methanesulfonate (Ethyl-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09830	Yes	NJ	9/8/2016
Methanesulfonate (Methyl-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09840	Yes	NJ	9/8/2016
Methapyrilene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09850	Yes	NJ	9/8/2016
Methyl phenol (4-chloro-3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09860	Yes	NJ	7/1/2002
Methylcholanthrene (3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09870	Yes	NJ	9/8/2016
Methylnaphthalene (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09880	Yes	NJ	7/1/2002
Methylphenanthrene (1-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09890	Yes	NJ	7/1/2002
Methylphenol (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09900	Yes	NJ	8/13/2003
Methylphenol (3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09910	Yes	NJ	9/8/2016
Methylphenol (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09920	Yes	NJ	7/1/2002
Naphthalene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09930	Yes	NJ	7/1/2002
Napthoquinone (1,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09940	Yes	NJ	9/8/2016
Napthylamine (1-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09950	Yes	NJ	9/8/2016
Napthylamine (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09960	Yes	NJ	9/8/2016
Nitroaniline (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09970	Yes	NJ	7/1/2002
Nitroaniline (3-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09980	Yes	NJ	7/1/2002
Nitroaniline (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.09990	Yes	NJ	7/1/2002
Nitrobenzene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10000	Yes	NJ	7/1/2002
Nitrophenol (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10010	Yes	NJ	7/1/2002
Nitrophenol (4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10020	Yes	NJ	7/1/2002

N-Nitrosodiethylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10030	Yes	NJ	7/1/2004
N-Nitrosodimethylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10040	Yes	NJ	7/1/2002
N-Nitroso-di-n-butylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10050	Yes	NJ	7/1/2004
N-Nitroso-di-n-propylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10060	Yes	NJ	7/1/2002
N-Nitrosodiphenylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10070	Yes	NJ	7/1/2002
N-Nitrosomethylethylamine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10080	Yes	NJ	9/8/2016
N-Nitrosomorpholine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10090	Yes	NJ	9/8/2016
N-Nitrosopiperidine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10100	Yes	NJ	9/8/2016
N-Nitrosopyrrolidine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10110	Yes	NJ	7/1/2004
Octadecane (n-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10120	Yes	NJ	8/13/2003
Pentachlorobenzene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10200	Yes	NJ	7/1/2004
Pentachlorophenol	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10230	Yes	NJ	7/1/2002
Phenacetin	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10240	Yes	NJ	9/8/2016
Phenanthrene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10250	Yes	NJ	7/1/2002
Phenol	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10260	Yes	NJ	7/1/2002
Phenylethylamine (alpha, alpha-Dimethyl)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10280	Yes	NJ	9/8/2016
Phosphorothioate (O,O,O-triethyl)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10290	Yes	NJ	9/8/2016
Phosphorothioate (diethyl-O-2-pyrazinyl) [Thionazin]	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10300	Yes	NJ	9/8/2016
Picoline (2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10310	Yes	NJ	9/8/2016
Pyrene	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10320	Yes	NJ	7/1/2002
Pyridine	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10330	Yes	NJ	7/1/2002
Quinoline -1-Oxide (4-Nitro)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10340	Yes	NJ	9/8/2016
Safrole	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10350	Yes	NJ	9/8/2016
Tetrachlorobenzene (1,2,4,5-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10390	Yes	NJ	7/1/2004
Tetrachlorophenol (2,3,4,6-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10400	Yes	NJ	12/1/2006
Toluidine (2-) [2-Methylaniline]	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10420	Yes	NJ	9/8/2016
Toluidine (5-nitro-2-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10430	Yes	NJ	9/8/2016
Trichlorobenzene (1,2,4-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10440	Yes	NJ	7/1/2002
Trichlorophenol (2,4,5-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10460	Yes	NJ	7/1/2002
Trichlorophenol (2,4,6-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10470	Yes	NJ	7/1/2002
Trinitrobenzene (1,3,5-)	NPW	Certified	EPA 625	Extract, GC/MS	NPW11.10480	Yes	NJ	9/8/2016
TCDD (2,3,7,8-)	NPW	Certified	EPA 625 (screen only)	GC/MS, Selected Ion Monitoring	NPW11.10680	Yes	NJ	9/8/2016
Trimethylpentane (2,2,4-)	NPW	Certified	SW-846 8260B	GC/MS, Extract or Dir Inj, Capillary	NPW11.13100	Yes	NJ	10/15/2010
Acetone	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13110	Yes	NJ	7/1/2002
Acetonitrile	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13120	Yes	NJ	7/1/2004
Acrolein	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13130	Yes	NJ	7/1/2002
Acrylonitrile	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13140	Yes	NJ	7/1/2002
Allyl chloride	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13150	Yes	NJ	7/1/2002
Benzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13180	Yes	NJ	7/1/2002
Benzyl chloride	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13190	Yes	NJ	7/1/2007
Bromobenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13200	Yes	NJ	7/1/2005
Bromochloromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13210	Yes	NJ	7/1/2005
Bromodichloromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13220	Yes	NJ	7/1/2002
Bromoform	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13240	Yes	NJ	7/1/2002
Bromomethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13250	Yes	NJ	7/1/2002
Butadiene (2-chloro-1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13260	Yes	NJ	7/1/2007
Butanol (1-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13270	Yes	NJ	12/2/2008
[illegible]	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13290	Yes	NJ	7/1/2002
Butylbenzene (n-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13330	Yes	NJ	7/1/2005
Carbon disulfide	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13340	Yes	NJ	7/1/2002
Carbon tetrachloride	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13350	Yes	NJ	7/1/2002
Chlorobenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13360	Yes	NJ	7/1/2002
Chloroethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13370	Yes	NJ	7/1/2002
Chloroethyl vinyl ether (2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13380	Yes	NJ	7/1/2002
Chloroform	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13390	Yes	NJ	7/1/2002
Chloromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13400	Yes	NJ	7/1/2002
Chlorotoluene (2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13410	Yes	NJ	7/1/2005
Chlorotoluene (4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13420	Yes	NJ	7/1/2005
Cyclohexane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13430	Yes	NJ	12/2/2008
Cyclohexanone	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13440	Yes	NJ	7/1/2005
Dibromo-3-chloropropane (1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13450	Yes	NJ	7/1/2004
Dibromochloromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13460	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13470	Yes	NJ	7/1/2004
Dibromomethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13480	Yes	NJ	12/1/2006
Dichloro-2-butene (trans-1,4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13500	Yes	NJ	7/1/2004
Dichlorobenzene (1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13510	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13520	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13530	Yes	NJ	7/1/2002
Dichlorodifluoromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13540	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13550	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13560	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13570	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13580	Yes	NJ	7/1/2002
Dichloroethene (trans-1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13590	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13600	Yes	NJ	7/1/2002
Dichloropropane (1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13610	Yes	NJ	7/1/2005
Dichloropropane (2,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13620	Yes	NJ	7/1/2005
Dichloropropene (1,1-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13630	Yes	NJ	7/1/2005
Dichloropropene (cis-1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13640	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13650	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13660	Yes	NJ	7/1/2005
Diisopropyl Ether [DIPE]	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13670	Yes	NJ	12/1/2006
Dioxane (1,4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13680	Yes	NJ	7/1/2004
Ethanol	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13690	Yes	NJ	7/1/2007
Ethyl acetate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13700	Yes	NJ	7/1/2005
Ethyl methacrylate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13710	Yes	NJ	7/1/2005
Ethylbenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13720	Yes	NJ	7/1/2002
Ethyl-tert-butyl Ether [ETBE]	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13730	Yes	NJ	12/1/2006
Heptane (n-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13740	Yes	NJ	1/23/2012
Hexachlorobutadiene (1,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13750	Yes	NJ	7/1/2002
Hexachloroethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13760	Yes	NJ	7/1/2002

Hexane (n-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13770	Yes	NJ	1/23/2012
Hexanone (2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13780	Yes	NJ	7/1/2002
Iso-butyl alcohol	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13790	Yes	NJ	7/1/2005
Isopropylbenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13820	Yes	NJ	7/1/2005
Isopropyltoluene (4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13830	Yes	NJ	7/1/2005
Methacrylonitrile	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13840	Yes	NJ	7/1/2005
Methyl acetate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13850	Yes	NJ	12/2/2008
Methyl acrylate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13860	Yes	NJ	7/1/2007
Methyl iodide	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13870	Yes	NJ	7/1/2004
Methyl methacrylate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13880	Yes	NJ	7/1/2005
Methyl tert-butyl ether	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13890	Yes	NJ	7/1/2002
Methylcyclohexane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13900	Yes	NJ	4/6/2010
Methylene chloride (Dichloromethane)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection, Capillary	NPW11.13910	Yes	NJ	7/1/2002
Naphthalene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13940	Yes	NJ	7/1/2002
Nitropropane (2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13960	Yes	NJ	12/2/2008
Pentachloroethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.13990	Yes	NJ	7/1/2005
Pentanone (4-methyl-2-) (MIBK)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14010	Yes	NJ	7/1/2002
Propionitrile	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14020	Yes	NJ	7/1/2005
Propylbenzene (n-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14030	Yes	NJ	7/1/2005
Sec-butylbenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14040	Yes	NJ	7/1/2005
Styrene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14050	Yes	NJ	7/1/2002
tert-Amylmethyl ether [TAME]	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14060	Yes	NJ	12/1/2006
Tert-butyl alcohol	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14070	Yes	NJ	7/1/2004
Tert-butylbenzene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14080	Yes	NJ	7/1/2005
Tetrachloroethane (1,1,1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14090	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,2,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14100	Yes	NJ	7/1/2002
Tetrachloroethene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14110	Yes	NJ	7/1/2002
Tetrahydrofuran	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14120	Yes	NJ	7/1/2005
Toluene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14130	Yes	NJ	7/1/2002
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection, Capillary	NPW11.14150	Yes	NJ	7/1/2004
Trichlorobenzene (1,2,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14160	Yes	NJ	7/1/2005
Trichlorobenzene (1,2,4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14170	Yes	NJ	7/1/2002
Trichloroethane (1,1,1-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14180	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14190	Yes	NJ	7/1/2002
Trichloroethene	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14200	Yes	NJ	7/1/2002
Trichlorofluoromethane	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14210	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14220	Yes	NJ	7/1/2004
Trimethylbenzene (1,2,4-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14240	Yes	NJ	7/1/2005
Trimethylbenzene (1,3,5-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14250	Yes	NJ	7/1/2005
Vinyl acetate	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14260	Yes	NJ	7/1/2004
Vinyl chloride	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14270	Yes	NJ	7/1/2002
Xylene (m-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14280	Yes	NJ	7/1/2005
Xylene (o-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14290	Yes	NJ	7/1/2005
Xylene (p-)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14300	Yes	NJ	7/1/2005
Xylenes (total)	NPW	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.14310	Yes	NJ	7/1/2002
Trimethylpentane (2,2,4-)	NPW	Certified	SW-846 8260C	GC/MS, Extract or Dir Inj, Capillary	NPW11.14320	Yes	NJ	10/15/2010
Acetone	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14330	Yes	NJ	7/1/2002
Acetonitrile	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14340	Yes	NJ	7/1/2004
Acrolein	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14350	Yes	NJ	7/1/2002
Acrylonitrile	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14360	Yes	NJ	7/1/2002
Allyl chloride	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14370	Yes	NJ	7/1/2005
Amyl alcohol (t-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14380	Yes	NJ	1/18/2017
Benzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14390	Yes	NJ	7/1/2002
Benzyl chloride	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14400	Yes	NJ	7/1/2007
Bromobenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14410	Yes	NJ	7/1/2005
Bromochloromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14420	Yes	NJ	7/1/2005
Bromodichloromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14430	Yes	NJ	7/1/2002
Bromoform	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14450	Yes	NJ	7/1/2002
Bromomethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14460	Yes	NJ	7/1/2002
Butadiene (2-chloro-1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14470	Yes	NJ	7/1/2007
Butanol (1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14480	Yes	NJ	12/2/2008
Butanol (3,3-Dimethyl-1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14490	Yes	NJ	9/8/2016
[illegible]	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14500	Yes	NJ	7/1/2002
Butyl formate (t-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14510	Yes	NJ	9/8/2016
Butylbenzene (n-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14540	Yes	NJ	7/1/2005
Carbon disulfide	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14550	Yes	NJ	7/1/2002
Carbon tetrachloride	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14560	Yes	NJ	7/1/2002
Chlorobenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14570	Yes	NJ	7/1/2002
Chloroethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14580	Yes	NJ	7/1/2002
Chloroethyl vinyl ether (2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14590	Yes	NJ	7/1/2002
Chloroform	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14600	Yes	NJ	7/1/2002
Chloromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14610	Yes	NJ	7/1/2002
Chlorotoluene (2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14620	Yes	NJ	7/1/2005
Chlorotoluene (4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14630	Yes	NJ	7/1/2005
Cyclohexane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14650	Yes	NJ	12/2/2008
Cyclohexanone	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14660	Yes	NJ	7/1/2005
Dibromo-3-chloropropane (1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14670	Yes	NJ	7/1/2004
Dibromochloromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14680	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14690	Yes	NJ	7/1/2004
Dibromomethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14700	Yes	NJ	12/1/2006
Dichloro-2-butene (trans-1,4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14720	Yes	NJ	7/1/2004
Dichlorobenzene (1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14730	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14740	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14750	Yes	NJ	7/1/2002
Dichlorodifluoromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14760	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14770	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14780	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14790	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14800	Yes	NJ	7/1/2002
Dichloroethene (trans-1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14810	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14820	Yes	NJ	7/1/2002

Dichloropropane (1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14830	Yes	NJ	7/1/2005
Dichloropropane (2,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14840	Yes	NJ	7/1/2005
Dichloropropene (1,1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14850	Yes	NJ	7/1/2005
Dichloropropene (cis-1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14860	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14870	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14880	Yes	NJ	7/1/2005
Diisopropyl Ether [DIPE]	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14890	Yes	NJ	12/1/2006
Dioxane (1,4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14900	Yes	NJ	7/1/2004
Ethanol	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14910	Yes	NJ	7/1/2007
Ethyl acetate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14920	Yes	NJ	7/1/2005
Ethyl methacrylate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14930	Yes	NJ	7/1/2005
Ethylbenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14940	Yes	NJ	7/1/2002
Ethyl-tert-butyl Ether [ETBE]	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14950	Yes	NJ	12/1/2006
Heptane (n-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14960	Yes	NJ	1/23/2012
Hexachlorobutadiene (1,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14970	Yes	NJ	7/1/2002
Hexachloroethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14980	Yes	NJ	7/1/2002
Hexane (n-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.14990	Yes	NJ	1/23/2012
Hexanone (2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15000	Yes	NJ	7/1/2002
Iso-butyl alcohol	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15010	Yes	NJ	7/1/2005
Isopropyl acetate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15030	Yes	NJ	9/8/2016
Isopropylbenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15040	Yes	NJ	7/1/2005
Isopropyltoluene (4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15050	Yes	NJ	7/1/2005
Methacrylonitrile	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15060	Yes	NJ	7/1/2005
Methyl acetate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15070	Yes	NJ	12/2/2008
Methyl acrylate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15080	Yes	NJ	7/1/2007
Methyl Iodide	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15090	Yes	NJ	7/1/2004
Methyl methacrylate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15100	Yes	NJ	7/1/2005
Methyl tert-butyl ether	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15110	Yes	NJ	7/1/2002
Methylcyclohexane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15120	Yes	NJ	4/6/2010
Methylene chloride (Dichloromethane)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection, Capillary	NPW11.15130	Yes	NJ	7/1/2002
Naphthalene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15160	Yes	NJ	7/1/2002
Nitropropane (2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15180	Yes	NJ	12/2/2008
Pentachloroethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15210	Yes	NJ	7/1/2005
Pentanone (4-methyl-2-) (MIBK)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15230	Yes	NJ	7/1/2002
Propionitrile	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15240	Yes	NJ	7/1/2005
Propylbenzene (n-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15250	Yes	NJ	7/1/2005
Sec-butylbenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15260	Yes	NJ	7/1/2005
Styrene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15270	Yes	NJ	7/1/2002
tert-Amylmethyl ether [TAME]	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15280	Yes	NJ	12/1/2006
Tert-butyl alcohol	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15300	Yes	NJ	7/1/2004
Tert-butylbenzene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15310	Yes	NJ	7/1/2005
Tetrachloroethane (1,1,1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15320	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,2,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15330	Yes	NJ	7/1/2002
Tetrachloroethene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15340	Yes	NJ	7/1/2002
Tetrahydrofuran	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15350	Yes	NJ	7/1/2005
Toluene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15360	Yes	NJ	7/1/2002
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection, Capillary	NPW11.15380	Yes	NJ	7/1/2004
Trichlorobenzene (1,2,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15390	Yes	NJ	7/1/2005
Trichlorobenzene (1,2,4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15400	Yes	NJ	7/1/2002
Trichloroethane (1,1,1-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15410	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15420	Yes	NJ	7/1/2002
Trichloroethene	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15430	Yes	NJ	7/1/2002
Trichlorofluoromethane	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15440	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15450	Yes	NJ	7/1/2004
Trimethylbenzene (1,2,4-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15470	Yes	NJ	7/1/2005
Trimethylbenzene (1,3,5-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15480	Yes	NJ	7/1/2005
Vinyl acetate	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15490	Yes	NJ	7/1/2004
Vinyl chloride	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15500	Yes	NJ	7/1/2002
Xylene (m-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15510	Yes	NJ	7/1/2005
Xylene (o-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15520	Yes	NJ	7/1/2005
Xylene (p-)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15530	Yes	NJ	7/1/2005
Xylenes (total)	NPW	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	NPW11.15540	Yes	NJ	7/1/2002
Dioxane (1,4-)	NPW	Certified	SW-846 8260C	GC/MS/SIM, P & T or Direct Injection,	NPW11.15545	Yes	NJ	9/8/2016
Acenaphthene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17750	Yes	NJ	7/1/2002
Acenaphthylene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17760	Yes	NJ	7/1/2002
Acetophenone	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17770	Yes	NJ	7/1/2005
Acetylaminofluorene (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17780	Yes	NJ	7/1/2005
Alpha - terpineol	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17800	Yes	NJ	7/1/2005
Aminobiphenyl (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17820	Yes	NJ	7/1/2005
Aniline	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17840	Yes	NJ	7/1/2004
Anthracene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17850	Yes	NJ	7/1/2002
Aramite	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17860	Yes	NJ	12/1/2006
Atrazine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17870	Yes	NJ	11/17/2009
Benzaldehyde	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17890	Yes	NJ	11/17/2009
Benzenethiol	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17900	Yes	NJ	9/8/2016
Benzidine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17910	Yes	NJ	7/1/2004
Benzo(a)anthracene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17920	Yes	NJ	7/1/2002
Benzo(a)pyrene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17930	Yes	NJ	7/1/2002
Benzo(b)fluoranthene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17940	Yes	NJ	7/1/2002
Benzo(ghi)perylene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17950	Yes	NJ	7/1/2002
Benzo(k)fluoranthene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17970	Yes	NJ	7/1/2002
Benzoic acid	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.17980	Yes	NJ	7/1/2004
Benzyl alcohol	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18000	Yes	NJ	7/1/2005
Biphenyl (1,1'-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18030	Yes	NJ	11/17/2009
Bis (2-chloroethoxy) methane	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18040	Yes	NJ	7/1/2002
Bis (2-chloroethyl) ether	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18050	Yes	NJ	7/1/2002
Bis(2-chloroisopropyl)ether[2,2'-oxybis(1-chloropropane)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18060	Yes	NJ	7/1/2002
Bis (2-ethylhexyl) phthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18070	Yes	NJ	7/1/2002
Bromophenyl-phenyl ether (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18080	Yes	NJ	7/1/2002
Butylbenzylphthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18090	Yes	NJ	7/1/2002

Caprolactam	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18100	Yes	NJ	11/17/2009
Carbazole	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18110	Yes	NJ	7/1/2002
Chloroaniline (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18150	Yes	NJ	7/1/2002
Chlorobenzilate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18160	Yes	NJ	7/1/2005
Chloronaphthalene (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18180	Yes	NJ	7/1/2002
Chlorophenol (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18190	Yes	NJ	7/1/2002
Chlorophenyl-phenyl ether (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18200	Yes	NJ	7/1/2002
Chrysene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18210	Yes	NJ	7/1/2002
Decane (n-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18250	Yes	NJ	10/15/2010
Dialiate (cis)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18270	Yes	NJ	12/1/2006
Dialiate (trans)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18280	Yes	NJ	12/1/2006
Dibenz(a,h)acridine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18290	Yes	NJ	12/1/2006
Dibenzo(a,h)anthracene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18320	Yes	NJ	7/1/2002
Dibenzofuran	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18360	Yes	NJ	7/1/2002
Dichlorobenzene (1,2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18370	Yes	NJ	7/1/2004
Dichlorobenzene (1,3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18380	Yes	NJ	7/1/2004
Dichlorobenzene (1,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18390	Yes	NJ	7/1/2002
Dichlorobenzidine (3,3'-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18400	Yes	NJ	7/1/2002
Dichlorophenol (2,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18410	Yes	NJ	7/1/2002
Dichlorophenol (2,6-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18420	Yes	NJ	12/1/2006
Diethyl phthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18440	Yes	NJ	7/1/2002
Dimethoate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18450	Yes	NJ	12/1/2006
Dimethyl benzidine (3,3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18460	Yes	NJ	12/1/2006
Dimethyl phthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18470	Yes	NJ	7/1/2002
Dimethylaminoazobenzene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18480	Yes	NJ	12/1/2006
[illegible]	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18530	Yes	NJ	12/1/2006
Dimethylphenol (2,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18540	Yes	NJ	7/1/2002
Di-n-butyl phthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18550	Yes	NJ	7/1/2002
Dinitrobenzene (1,3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18560	Yes	NJ	12/1/2006
Dinitrophenol (2,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18580	Yes	NJ	7/1/2002
Dinitrophenol (2-methyl-4,6-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18590	Yes	NJ	7/1/2002
Dinitrotoluene (2,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18600	Yes	NJ	7/1/2002
Dinitrotoluene (2,6-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18610	Yes	NJ	7/1/2002
Di-n-octyl phthalate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18620	Yes	NJ	7/1/2002
Dinoseb	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18630	Yes	NJ	7/1/2005
Diphenylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18640	Yes	NJ	7/1/2002
Diphenylhydrazine (1,2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18650	Yes	NJ	12/1/2006
Disulfoton	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18660	Yes	NJ	7/1/2005
Famphur	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18740	Yes	NJ	12/1/2006
Fluoranthene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18750	Yes	NJ	7/1/2002
Fluorene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18760	Yes	NJ	7/1/2002
Hexachlorobenzene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18790	Yes	NJ	7/1/2002
Hexachlorobutadiene (1,3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18800	Yes	NJ	7/1/2002
Hexachlorocyclopentadiene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18810	Yes	NJ	7/1/2002
Hexachloroethane	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18820	Yes	NJ	7/1/2002
Hexachlorophene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18830	Yes	NJ	12/1/2006
Hexachloropropene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18840	Yes	NJ	7/1/2002
Hydroquinone	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18850	Yes	NJ	2/4/2010
Indene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18860	Yes	NJ	9/8/2016
Indeno(1,2,3-cd)pyrene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18870	Yes	NJ	7/1/2002
Isodrin	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18880	Yes	NJ	7/1/2005
Isophorone	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18890	Yes	NJ	7/1/2002
Isosafrole (cis-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18900	Yes	NJ	12/1/2006
Isosafrole (trans-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18910	Yes	NJ	12/1/2006
Kepone	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18920	Yes	NJ	7/1/2005
Methanesulfonate (Ethyl-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18940	Yes	NJ	12/1/2006
Methanesulfonate (Methyl-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18950	Yes	NJ	12/1/2006
Methapyrilene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18960	Yes	NJ	12/1/2006
Methyl phenol (4-chloro-3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18980	Yes	NJ	7/1/2002
Methylcholanthrene (3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.18990	Yes	NJ	4/23/2009
Methylnaphthalene (1-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19000	Yes	NJ	1/23/2012
Methylnaphthalene (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19010	Yes	NJ	7/1/2002
Methylphenol (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19020	Yes	NJ	7/1/2002
Methylphenol (3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19030	Yes	NJ	7/1/2002
Methylphenol (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19040	Yes	NJ	7/1/2002
Naphthalene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19050	Yes	NJ	7/1/2002
Napthoquinone (1,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19060	Yes	NJ	12/1/2006
Napthylamine (1-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19070	Yes	NJ	12/1/2006
Napthylamine (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19080	Yes	NJ	12/1/2006
Nitroaniline (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19090	Yes	NJ	7/1/2002
Nitroaniline (3-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19100	Yes	NJ	7/1/2002
Nitroaniline (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19110	Yes	NJ	7/1/2002
Nitrobenzene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19120	Yes	NJ	7/1/2002
Nitrophenol (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19140	Yes	NJ	7/1/2002
Nitrophenol (4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19150	Yes	NJ	7/1/2002
N-Nitrosodiethylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19160	Yes	NJ	7/1/2004
N-Nitrosodimethylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19170	Yes	NJ	7/1/2005
N-Nitroso-di-n-butylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19180	Yes	NJ	7/1/2005
N-Nitroso-di-n-propylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19190	Yes	NJ	7/1/2004
N-Nitrosodiphenylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19200	Yes	NJ	7/1/2002
N-Nitrosomethylethylamine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19210	Yes	NJ	7/1/2005
N-Nitrosomorpholine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19220	Yes	NJ	7/1/2005
N-Nitrosopiperidine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19230	Yes	NJ	12/1/2006
N-Nitrosopyrrolidine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19240	Yes	NJ	7/1/2005
Octadecane (n-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19250	Yes	NJ	10/15/2010
Parathion	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19260	Yes	NJ	7/1/2005
Parathion methyl	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19270	Yes	NJ	7/1/2005
Pentachlorobenzene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19350	Yes	NJ	7/1/2005
Pentachloroethane	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19360	Yes	NJ	7/1/2007
Pentachloronitrobenzene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19370	Yes	NJ	7/1/2005
Pentachlorophenol	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19380	Yes	NJ	7/1/2002
Phenacetin	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19390	Yes	NJ	12/1/2006
Phenanthrene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19400	Yes	NJ	7/1/2002

Phenol	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19410	Yes	NJ	7/1/2002
Phenylenediamine (1,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19420	Yes	NJ	12/1/2006
Phenylethylamine (alpha, alpha-Dimethyl)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19430	Yes	NJ	12/1/2006
Phorate	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19440	Yes	NJ	7/1/2005
Phosphorothioate (O,O,O-triethyl)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19450	Yes	NJ	12/1/2006
Phosphorothioate (diethyl-O-2-pyrazinyl) [Thionazin]	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19460	Yes	NJ	12/1/2006
Picoline (2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19470	Yes	NJ	7/1/2005
Pronamide	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19480	Yes	NJ	7/1/2005
Pyrene	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19490	Yes	NJ	7/1/2002
Pyridine	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19500	Yes	NJ	7/1/2002
Quinoline	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19510	Yes	NJ	9/8/2016
Quinoline -1-Oxide (4-Nitro)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19520	Yes	NJ	12/1/2006
Safrole	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19530	Yes	NJ	12/1/2006
Tetrachlorobenzene (1,2,4,5-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19580	Yes	NJ	7/1/2005
Tetrachlorophenol (2,3,4,6-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19590	Yes	NJ	12/1/2006
Toluidine (2-) (2-Methylaniline)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19600	Yes	NJ	7/1/2005
Toluidine (5-nitro-2-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19620	Yes	NJ	12/1/2006
Trichlorobenzene (1,2,4-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19640	Yes	NJ	7/1/2002
Trichlorophenol (2,4,5-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19650	Yes	NJ	7/1/2002
Trichlorophenol (2,4,6-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19660	Yes	NJ	7/1/2002
Trinitrobenzene (1,3,5-)	NPW	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.19680	Yes	NJ	12/1/2006
Acenaphthene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19690	Yes	NJ	5/18/2015
Acenaphthylene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19700	Yes	NJ	5/18/2015
Anthracene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19710	Yes	NJ	5/18/2015
Benzo(a)anthracene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19720	Yes	NJ	1/2/2007
Benzo(a)pyrene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19730	Yes	NJ	1/2/2007
Benzo(b)fluoranthene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19740	Yes	NJ	1/2/2007
Benzo(ghi)perylene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19750	Yes	NJ	5/15/2015
Benzo(k)fluoranthene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19760	Yes	NJ	1/2/2007
Chrysene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19770	Yes	NJ	5/18/2015
Dibenzo(a,h)anthracene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19780	Yes	NJ	1/2/2007
Dinitrophenol (2-methyl-4,6-)	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19790	Yes	NJ	12/1/2015
Dioxane (1,4-)	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19794	Yes	NJ	12/1/2015
Fluoranthene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19800	Yes	NJ	5/18/2015
Fluorene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19810	Yes	NJ	5/18/2015
Hexachlorobenzene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19820	Yes	NJ	1/2/2007
Hexachlorobutadiene (1,3-)	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19830	Yes	NJ	12/1/2015
Indeno(1,2,3-cd)pyrene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19840	Yes	NJ	5/18/2015
Methylnaphthalene (2-)	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19860	Yes	NJ	1/2/2007
Naphthalene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19870	Yes	NJ	5/18/2015
Pentachlorophenol	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19890	Yes	NJ	1/23/2012
Phenanthrene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19900	Yes	NJ	7/26/2013
Pyrene	NPW	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	NPW11.19910	Yes	NJ	7/26/2013
Dichlorobenzene (1,2-)	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20880	No	NJ	3/7/2016
Dinoseb	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20910	No	NJ	3/7/2016
Disulfoton	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20920	No	NJ	3/7/2016
Isodrin	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20930	No	NJ	3/7/2016
Parathion	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20940	No	NJ	3/7/2016
Parathion methyl	NPW	Applied	User Defined EPA 625	Extract, GC/MS	NPW11.20950	No	NJ	3/7/2016
Dioxane (1,4-)	NPW	Certified	User Defined SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	NPW11.21110	Yes	NJ	7/26/2013
1,1,1-Trifluoroethane	NPW	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.21260	Yes	NJ	7/26/2013
1-Chloro-1,1-difluoroethane	NPW	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW11.21270	Yes	NJ	7/26/2013
1,1,1-Trifluoroethane	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21280	Yes	NJ	7/26/2013
1,1-Dichloro-1-fluoroethane	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21290	Yes	NJ	7/26/2013
1-Chloro-1,1-difluoroethane	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21300	Yes	NJ	7/26/2013
Dichlorodifluoromethane	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21500	Yes	NJ	7/1/2002
Naphthalene	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21850	Yes	NJ	12/1/2006
Trichlorobenzene (1,2,4-)	NPW	Certified	User Defined EPA 624	GC/MS, P & T, Capillary Column	NPW11.21980	Yes	NJ	8/20/2013
Ethylene glycol	NPW	Certified	User Defined SW-846 8260B	GC/MS/SIM, Direct Aqueous Injection	NPW11.22120	Yes	NJ	11/12/2008
Propylene glycol	NPW	Certified	User Defined SW-846 8260B	GC/MS/SIM, Direct Aqueous Injection	NPW11.22130	Yes	NJ	11/12/2008
Acetone [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection,	NPW11.24001	No	NJ	7/1/2017
Benzene [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection,	NPW11.24010	No	NJ	7/1/2017
Chlorobenzene [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24020	No	NJ	7/1/2017
Chloroform [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection,	NPW11.24030	No	NJ	7/1/2017
Dichlorobenzene (1,2-) [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24040	No	NJ	7/1/2017
Dichloroethane (1,2-) [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24050	No	NJ	7/1/2017
Methylene chloride [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24060	No	NJ	7/1/2017
Pentanone (4-methyl-2-) (MIBK) [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24070	No	NJ	7/1/2017
Tetrahydrofuran [40CFR136, Table 1F]	NPW	Certified	EPA 524.2	GC/MS, P & T or Direct Injection, Capillary	NPW11.24080	Yes	NJ	7/13/2017
Toluene [40CFR136, Table 1F]	NPW	Applied	EPA 524.2	GC/MS, P & T or Direct Injection,	NPW11.24090	No	NJ	7/1/2017
1,1-Dichloro-1-fluoroethane	NPW	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	NPW16.00001	Yes	NJ	7/26/2013
Diesel range organic	NPW	Certified	User Defined TCEQ 1005	Extraction, GC, FID	NPW16.01150	Yes	NJ	10/15/2010
Cation-exchange capacity	SCM	Certified	SW-846 9081	Soils, Sodium Acetate	SCM02.00020	Yes	NJ	7/1/2002
Chlorine - total, solid waste	SCM	Certified	SW-846 5050	Combustion, Bomb Oxidation	SCM02.00060	Yes	NJ	7/1/2007
Free liquid	SCM	Certified	SW-846 9095	Flow-Through Paint Filter, Observation	SCM02.00130	Yes	NJ	7/1/2002
Heat of combustion (BTU)	SCM	Certified	ASTM D240	Bomb Calorimeter	SCM02.00160	Yes	NJ	7/1/2007
Ignitability	SCM	Certified	SW-846 1010A	Pensky Martens	SCM02.00180	Yes	NJ	2/15/2017
pH - soil and waste	SCM	Certified	SW-846 9045D	Mix with Water or Calcium Chlorides	SCM02.00270	Yes	NJ	7/1/2002
Bromide	SCM	Certified	SW-846 9056	Ion Chromatography	SCM03.00120	Yes	NJ	7/1/2002
Bromide	SCM	Certified	SW-846 9056A	Ion Chromatography	SCM03.00130	Yes	NJ	7/1/2002
Chloride	SCM	Certified	SW-846 9056	Ion Chromatography	SCM03.00210	Yes	NJ	7/1/2002
Chloride	SCM	Certified	SW-846 9056A	Ion Chromatography	SCM03.00220	Yes	NJ	7/1/2002
Cyanide	SCM	Certified	SW-846 9012B	Colorimetric, Automated	SCM03.00310	Yes	NJ	7/1/2002
Cyanide - amenable to Cl2	SCM	Certified	SW-846 9012B	Distillation, Colorimetric (Automated)	SCM03.00382	Yes	NJ	7/6/2016
Extractable organic halides (EOX)	SCM	Certified	SW-846 9023	Extraction	SCM03.00420	Yes	NJ	7/1/2002

Fluoride	SCM	Certified	SW-846 9056	Ion Chromatography	SCM03.00460	Yes	NJ	7/1/2002
Fluoride	SCM	Certified	SW-846 9056A	Ion Chromatography	SCM03.00470	Yes	NJ	7/1/2002
Kjeldahl nitrogen - total	SCM	Certified	EPA 351.2	Digestion, Semi-automated	SCM03.00640	Yes	NJ	1/18/2017
Nitrate - nitrite	SCM	Certified	EPA 353.2	Cadmium Reduction, Automated	SCM03.00720	Yes	NJ	1/18/2017
Nitrite	SCM	Certified	SM 4500-NO2 B-11	Spectrophotometric, Manual	SCM03.00790	Yes	NJ	1/18/2017
Oil & grease - sludge-hem	SCM	Certified	SW-846 9071B	Extraction & Gravimetric	SCM03.00800	Yes	NJ	7/1/2002
Sulfate	SCM	Certified	SW-846 9056	Ion Chromatography	SCM03.01010	Yes	NJ	7/1/2002
Sulfate	SCM	Certified	SW-846 9056A	Ion Chromatography	SCM03.01020	Yes	NJ	7/1/2002
Sulfides, acid sol. & insol.	SCM	Certified	SW-846 9034	Titration	SCM03.01080	Yes	NJ	7/1/2002
Total organic carbon (TOC)	SCM	Certified	OTHER NJ Modified SW-846 9060A	Infrared Spectrometry or FID	SCM03.01120	Yes	NJ	7/1/2002
Total organic carbon (TOC)	SCM	Certified	Other Lloyd Kahn	Pyrolytic	SCM03.01130	Yes	NJ	7/16/2012
Metals	SCM	Certified	SW-846 3050B	Acid Digestion, Soil Sediment & Sludge	SCM05.00010	Yes	NJ	7/1/2002
Metals	SCM	Certified	SW-846 3060A	Chromium VI Digestion	SCM05.00020	Yes	NJ	7/1/2002
Metals	SCM	Certified	SW-846 1312	Synthetic PPT Leachate Procedure	SCM05.00130	Yes	NJ	7/1/2002
Metals	SCM	Certified	SW-846 1311	TCLP, Toxicity Procedure, Shaker	SCM05.00140	Yes	NJ	7/1/2002
Chromium (VI)	SCM	Certified	SW-846 7196A	Colorimetric	SCM06.00320	Yes	NJ	7/1/2002
Chromium (VI)	SCM	Certified	SW-846 7199	Ion Chromatography	SCM06.00350	Yes	NJ	4/21/2006
Mercury - solid waste	SCM	Certified	SW-846 7471A	AA, Manual Cold Vapor	SCM06.00650	Yes	NJ	7/1/2002
Mercury - solid waste	SCM	Certified	SW-846 7471B	AA, Manual Cold Vapor	SCM06.00660	Yes	NJ	7/1/2002
Aluminum	SCM	Certified	SW-846 6010B	ICP	SCM07.00010	Yes	NJ	7/1/2002
Aluminum	SCM	Certified	SW-846 6010C	ICP	SCM07.00020	Yes	NJ	7/1/2002
Aluminum	SCM	Certified	SW-846 6010D	ICP	SCM07.00022	Yes	NJ	7/1/2017
Aluminum	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00030	Yes	NJ	8/13/2003
Aluminum	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00040	Yes	NJ	8/13/2003
Aluminum	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00042	Yes	NJ	7/1/2017
Antimony	SCM	Certified	SW-846 6010B	ICP	SCM07.00050	Yes	NJ	7/1/2002
Antimony	SCM	Certified	SW-846 6010C	ICP	SCM07.00060	Yes	NJ	8/13/2003
Antimony	SCM	Certified	SW-846 6010D	ICP	SCM07.00062	Yes	NJ	7/1/2017
Antimony	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00080	Yes	NJ	8/13/2003
Antimony	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00090	Yes	NJ	8/13/2003
Antimony	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00092	Yes	NJ	7/1/2017
Arsenic	SCM	Certified	SW-846 6010B	ICP	SCM07.00110	Yes	NJ	7/1/2002
Arsenic	SCM	Certified	SW-846 6010C	ICP	SCM07.00120	Yes	NJ	7/1/2002
Arsenic	SCM	Certified	SW-846 6010D	ICP	SCM07.00122	Yes	NJ	7/1/2017
Arsenic	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00140	Yes	NJ	8/13/2003
Arsenic	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00150	Yes	NJ	8/13/2003
Arsenic	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00152	Yes	NJ	7/1/2017
Barium	SCM	Certified	SW-846 6010B	ICP	SCM07.00160	Yes	NJ	7/1/2002
Barium	SCM	Certified	SW-846 6010C	ICP	SCM07.00170	Yes	NJ	7/1/2002
Barium	SCM	Certified	SW-846 6010D	ICP	SCM07.00172	Yes	NJ	7/1/2017
Barium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00190	Yes	NJ	8/13/2003
Barium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00200	Yes	NJ	8/13/2003
Barium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00202	Yes	NJ	7/1/2017
Beryllium	SCM	Certified	SW-846 6010B	ICP	SCM07.00220	Yes	NJ	7/1/2002
Beryllium	SCM	Certified	SW-846 6010C	ICP	SCM07.00230	Yes	NJ	7/1/2002
Beryllium	SCM	Certified	SW-846 6010D	ICP	SCM07.00232	Yes	NJ	7/1/2017
Beryllium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00250	Yes	NJ	8/13/2003
Beryllium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00260	Yes	NJ	8/13/2003
Beryllium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00262	Yes	NJ	7/1/2017
Boron	SCM	Certified	SW-846 6010B	ICP	SCM07.00270	Yes	NJ	7/1/2002
Boron	SCM	Certified	SW-846 6010C	ICP	SCM07.00280	Yes	NJ	7/1/2002
Boron	SCM	Certified	SW-846 6010D	ICP	SCM07.00282	Yes	NJ	7/1/2017
Boron	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00300	Yes	NJ	9/8/2016
Boron	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00302	Yes	NJ	7/1/2017
Cadmium	SCM	Certified	SW-846 6010B	ICP	SCM07.00320	Yes	NJ	7/1/2002
Cadmium	SCM	Certified	SW-846 6010C	ICP	SCM07.00330	Yes	NJ	7/1/2002
Cadmium	SCM	Certified	SW-846 6010D	ICP	SCM07.00332	Yes	NJ	7/1/2017
Cadmium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00350	Yes	NJ	8/13/2003
Cadmium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00360	Yes	NJ	8/13/2003
Cadmium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00362	Yes	NJ	7/1/2017
Calcium	SCM	Certified	SW-846 6010B	ICP	SCM07.00380	Yes	NJ	7/1/2002
Calcium	SCM	Certified	SW-846 6010C	ICP	SCM07.00390	Yes	NJ	7/1/2002
Calcium	SCM	Certified	SW-846 6010D	ICP	SCM07.00392	Yes	NJ	7/1/2017
Calcium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00400	Yes	NJ	7/1/2004
Calcium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00410	Yes	NJ	7/1/2004
Calcium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00412	Yes	NJ	7/1/2017
Chromium	SCM	Certified	SW-846 6010B	ICP	SCM07.00420	Yes	NJ	7/1/2002
Chromium	SCM	Certified	SW-846 6010C	ICP	SCM07.00430	Yes	NJ	7/1/2002
Chromium	SCM	Certified	SW-846 6010D	ICP	SCM07.00432	Yes	NJ	7/1/2017
Chromium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00450	Yes	NJ	8/13/2003
Chromium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00460	Yes	NJ	8/13/2003
Chromium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00462	Yes	NJ	7/1/2017
Cobalt	SCM	Certified	SW-846 6010B	ICP	SCM07.00490	Yes	NJ	7/1/2002
Cobalt	SCM	Certified	SW-846 6010C	ICP	SCM07.00500	Yes	NJ	7/1/2002
Cobalt	SCM	Certified	SW-846 6010D	ICP	SCM07.00502	Yes	NJ	7/1/2017
Cobalt	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00520	Yes	NJ	8/13/2003
Cobalt	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00530	Yes	NJ	8/13/2003
Cobalt	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00532	Yes	NJ	7/1/2017
Copper	SCM	Certified	SW-846 6010B	ICP	SCM07.00540	Yes	NJ	7/1/2002
Copper	SCM	Certified	SW-846 6010C	ICP	SCM07.00550	Yes	NJ	7/1/2002
Copper	SCM	Certified	SW-846 6010D	ICP	SCM07.00552	Yes	NJ	7/1/2017
Copper	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00570	Yes	NJ	8/13/2003
Copper	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00580	Yes	NJ	8/13/2003
Copper	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00582	Yes	NJ	7/1/2017
Iron	SCM	Certified	SW-846 6010B	ICP	SCM07.00600	Yes	NJ	7/1/2002
Iron	SCM	Certified	SW-846 6010C	ICP	SCM07.00610	Yes	NJ	7/1/2002
Iron	SCM	Certified	SW-846 6010D	ICP	SCM07.00612	Yes	NJ	7/1/2017
Iron	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00620	Yes	NJ	7/1/2004
Iron	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00630	Yes	NJ	7/1/2004
Iron	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00632	Yes	NJ	7/1/2017
Lead	SCM	Certified	SW-846 6010B	ICP	SCM07.00650	Yes	NJ	7/1/2002
Lead	SCM	Certified	SW-846 6010C	ICP	SCM07.00660	Yes	NJ	7/1/2002

Lead	SCM	Certified	SW-846 6010D	ICP	SCM07.00662	Yes	NJ	7/1/2017
Lead	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00680	Yes	NJ	8/13/2003
Lead	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00690	Yes	NJ	8/13/2003
Lead	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00692	Yes	NJ	7/1/2017
Lithium	SCM	Certified	SW-846 6010B	ICP	SCM07.00710	Yes	NJ	2/10/2017
Lithium	SCM	Certified	SW-846 6010C	ICP	SCM07.00720	Yes	NJ	2/10/2017
Lithium	SCM	Certified	SW-846 6010D	ICP	SCM07.00722	Yes	NJ	7/1/2017
Magnesium	SCM	Certified	SW-846 6010B	ICP	SCM07.00730	Yes	NJ	7/1/2002
Magnesium	SCM	Certified	SW-846 6010C	ICP	SCM07.00740	Yes	NJ	7/1/2002
Magnesium	SCM	Certified	SW-846 6010D	ICP	SCM07.00742	Yes	NJ	7/1/2017
Magnesium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00750	Yes	NJ	7/1/2004
Magnesium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00760	Yes	NJ	7/1/2004
Magnesium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00762	Yes	NJ	7/1/2017
Manganese	SCM	Certified	SW-846 6010B	ICP	SCM07.00780	Yes	NJ	7/1/2002
Manganese	SCM	Certified	SW-846 6010C	ICP	SCM07.00790	Yes	NJ	7/1/2002
Manganese	SCM	Certified	SW-846 6010D	ICP	SCM07.00792	Yes	NJ	7/1/2017
Manganese	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00810	Yes	NJ	8/13/2003
Manganese	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00820	Yes	NJ	8/13/2003
Manganese	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00822	Yes	NJ	7/1/2017
Molybdenum	SCM	Certified	SW-846 6010B	ICP	SCM07.00840	Yes	NJ	7/1/2002
Molybdenum	SCM	Certified	SW-846 6010C	ICP	SCM07.00850	Yes	NJ	7/1/2002
Molybdenum	SCM	Certified	SW-846 6010D	ICP	SCM07.00852	Yes	NJ	7/1/2017
Molybdenum	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00870	Yes	NJ	7/1/2004
Molybdenum	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00880	Yes	NJ	7/1/2004
Molybdenum	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00882	Yes	NJ	7/1/2017
Nickel	SCM	Certified	SW-846 6010B	ICP	SCM07.00900	Yes	NJ	7/1/2002
Nickel	SCM	Certified	SW-846 6010C	ICP	SCM07.00910	Yes	NJ	7/1/2002
Nickel	SCM	Certified	SW-846 6010D	ICP	SCM07.00912	Yes	NJ	7/1/2017
Nickel	SCM	Certified	SW-846 6020	ICP/MS	SCM07.00930	Yes	NJ	8/13/2003
Nickel	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.00940	Yes	NJ	8/13/2003
Nickel	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.00942	Yes	NJ	7/1/2017
Potassium	SCM	Certified	SW-846 6010B	ICP	SCM07.00980	Yes	NJ	7/1/2002
Potassium	SCM	Certified	SW-846 6010C	ICP	SCM07.00990	Yes	NJ	7/1/2002
Potassium	SCM	Certified	SW-846 6010D	ICP	SCM07.00992	Yes	NJ	7/1/2017
Potassium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01000	Yes	NJ	7/1/2004
Potassium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01010	Yes	NJ	7/1/2004
Potassium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01012	Yes	NJ	7/1/2017
Selenium	SCM	Certified	SW-846 6010B	ICP	SCM07.01030	Yes	NJ	7/1/2002
Selenium	SCM	Certified	SW-846 6010C	ICP	SCM07.01040	Yes	NJ	7/1/2002
Selenium	SCM	Certified	SW-846 6010D	ICP	SCM07.01042	Yes	NJ	7/1/2017
Selenium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01060	Yes	NJ	8/13/2003
Selenium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01070	Yes	NJ	8/13/2003
Selenium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01072	Yes	NJ	7/1/2017
Silver	SCM	Certified	SW-846 6010B	ICP	SCM07.01110	Yes	NJ	7/1/2002
Silver	SCM	Certified	SW-846 6010C	ICP	SCM07.01120	Yes	NJ	7/1/2002
Silver	SCM	Certified	SW-846 6010D	ICP	SCM07.01122	Yes	NJ	7/1/2017
Silver	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01140	Yes	NJ	8/13/2003
Silver	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01150	Yes	NJ	8/13/2003
Silver	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01152	Yes	NJ	7/1/2017
Sodium	SCM	Certified	SW-846 6010B	ICP	SCM07.01170	Yes	NJ	7/1/2002
Sodium	SCM	Certified	SW-846 6010C	ICP	SCM07.01180	Yes	NJ	7/1/2002
Sodium	SCM	Certified	SW-846 6010D	ICP	SCM07.01182	Yes	NJ	7/1/2017
Sodium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01190	Yes	NJ	7/1/2004
Sodium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01200	Yes	NJ	7/1/2004
Sodium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01202	Yes	NJ	7/1/2017
Strontium	SCM	Certified	SW-846 6010B	ICP	SCM07.01210	Yes	NJ	7/1/2002
Strontium	SCM	Certified	SW-846 6010C	ICP	SCM07.01220	Yes	NJ	7/1/2002
Strontium	SCM	Certified	SW-846 6010D	ICP	SCM07.01222	Yes	NJ	7/1/2017
Strontium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01240	Yes	NJ	7/13/2017
Strontium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01242	Yes	NJ	7/13/2017
Thallium	SCM	Certified	SW-846 6010B	ICP	SCM07.01280	Yes	NJ	7/1/2002
Thallium	SCM	Certified	SW-846 6010C	ICP	SCM07.01290	Yes	NJ	7/1/2002
Thallium	SCM	Certified	SW-846 6010D	ICP	SCM07.01292	Yes	NJ	7/1/2017
Thallium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01310	Yes	NJ	8/13/2003
Thallium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01320	Yes	NJ	8/13/2003
Thallium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01322	Yes	NJ	7/1/2017
Tin	SCM	Certified	SW-846 6010B	ICP	SCM07.01370	Yes	NJ	7/1/2002
Tin	SCM	Certified	SW-846 6010C	ICP	SCM07.01380	Yes	NJ	7/1/2002
Tin	SCM	Certified	SW-846 6010D	ICP	SCM07.01382	Yes	NJ	7/1/2017
Tin	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01390	Yes	NJ	7/1/2004
Tin	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01400	Yes	NJ	7/1/2004
Tin	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01402	Yes	NJ	7/1/2017
Titanium	SCM	Certified	SW-846 6010B	ICP	SCM07.01410	Yes	NJ	7/1/2007
Titanium	SCM	Certified	SW-846 6010C	ICP	SCM07.01420	Yes	NJ	7/1/2007
Titanium	SCM	Certified	SW-846 6010D	ICP	SCM07.01422	Yes	NJ	7/1/2017
Titanium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01440	Yes	NJ	7/13/2017
Titanium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01442	Yes	NJ	7/13/2017
Vanadium	SCM	Certified	SW-846 6010B	ICP	SCM07.01520	Yes	NJ	7/1/2002
Vanadium	SCM	Certified	SW-846 6010C	ICP	SCM07.01530	Yes	NJ	7/1/2002
Vanadium	SCM	Certified	SW-846 6010D	ICP	SCM07.01532	Yes	NJ	7/1/2017
Vanadium	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01550	Yes	NJ	8/13/2003
Vanadium	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01560	Yes	NJ	8/13/2003
Vanadium	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01562	Yes	NJ	7/1/2017
Zinc	SCM	Certified	SW-846 6010B	ICP	SCM07.01580	Yes	NJ	7/1/2002
Zinc	SCM	Certified	SW-846 6010C	ICP	SCM07.01590	Yes	NJ	7/1/2002
Zinc	SCM	Certified	SW-846 6010D	ICP	SCM07.01592	Yes	NJ	7/1/2017
Zinc	SCM	Certified	SW-846 6020	ICP/MS	SCM07.01610	Yes	NJ	8/13/2003
Zinc	SCM	Certified	SW-846 6020A	ICP/MS	SCM07.01620	Yes	NJ	8/13/2003
Zinc	SCM	Certified	SW-846 6020B	ICP/MS	SCM07.01622	Yes	NJ	7/1/2017
Zirconium	SCM	Certified	SW-846 6010B	ICP	SCM07.01640	Yes	NJ	2/10/2017
Zirconium	SCM	Certified	SW-846 6010C	ICP	SCM07.01642	Yes	NJ	2/10/2017
Zirconium	SCM	Certified	SW-846 6010D	ICP	SCM07.01644	Yes	NJ	7/1/2017
Organics	SCM	Certified	SW-846 1312	Synthetic PPT Leachate Procedure	SCM08.00080	Yes	NJ	7/1/2002

Organics	SCM	Certified	SW-846 3580A	Waste Dilution	SCM08.00090	Yes	NJ	7/1/2003
Semivolatile organics	SCM	Certified	SW-846 3650B	Cleanup-Acid/Base Partition	SCM08.00140	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3610B	Cleanup-Alumina	SCM08.00150	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3620B	Cleanup-Florisil	SCM08.00160	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3620C	Cleanup-Florisil	SCM08.00170	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3640A	Cleanup-Gel Permeation	SCM08.00180	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3630C	Cleanup-Silica Gel	SCM08.00190	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3660B	Cleanup-Sulfur Removal	SCM08.00200	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3665A	Cleanup-Sulfuric Acid/KMnO4	SCM08.00220	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3546	Microwave Extraction	SCM08.00240	Yes	NJ	4/20/2012
Semivolatile organics	SCM	Certified	SW-846 3611B	Petroleum Waste, Cleanup Alumina	SCM08.00250	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3540C	Soxhlet Extraction	SCM08.00280	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 1311	TCLP, Toxicity Procedure, Shaker	SCM08.00320	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3550B	Ultrasonic Extraction	SCM08.00340	Yes	NJ	7/1/2002
Semivolatile organics	SCM	Certified	SW-846 3550C	Ultrasonic Extraction	SCM08.00350	Yes	NJ	7/1/2002
Volatile organics	SCM	Certified	SW-846 1311	TCLP, Toxicity Procedure, ZHE	SCM08.00390	Yes	NJ	7/1/2002
Volatile organics	SCM	Certified	SW-846 3810	Headspace, GC or GC/MS Screen	SCM08.00410	Yes	NJ	7/1/2002
Volatile organics - high conc.	SCM	Certified	SW-846 5035A	Methanol Extract, Closed System P & T	SCM08.00440	Yes	NJ	7/1/2002
Volatile organics - high conc.	SCM	Certified	SW-846 5035	Methanol Extract, Closed System P & T	SCM08.00450	Yes	NJ	7/1/2002
Volatile organics - low conc.	SCM	Certified	SW-846 5035A	Closed System Purge & Trap	SCM08.00460	Yes	NJ	7/1/2002
Volatile organics - low conc.	SCM	Certified	SW-846 5035	Closed System Purge & Trap	SCM08.00470	Yes	NJ	7/1/2002
Extractable Petroleum Hydrocarbons	SCM	Certified	Other NJDEP EPH 10/08, Rev. 3	Extraction, GC, FID	SCM09.00050	Yes	NJ	8/27/2010
Petroleum Organics	SCM	Certified	Other NJ-OQA-QAM-025, Rev. 7	Extraction, GC, FID	SCM09.00060	Yes	NJ	3/19/2007
Butanol (1-)	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00160	Yes	NJ	2/16/2011
Diesel range organic	SCM	Certified	SW-846 8015B	Extraction, GC, FID	SCM09.00180	Yes	NJ	7/1/2002
Ethyl alcohol	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00200	Yes	NJ	7/1/2005
Gasoline range organic	SCM	Certified	SW-846 8015B	GC P&T, FID	SCM09.00230	Yes	NJ	7/1/2002
Iso-butyl alcohol	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00240	Yes	NJ	7/1/2002
Isopropyl alcohol	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00250	Yes	NJ	7/1/2005
Methyl alcohol (Methanol)	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00260	Yes	NJ	8/13/2003
Propyl Alcohol (n-)	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00320	Yes	NJ	2/16/2011
Tert-butyl alcohol	SCM	Certified	SW-846 8015B	GC, Direct Injection or P & T, FID	SCM09.00350	Yes	NJ	7/1/2002
Butanol (1-)	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00420	Yes	NJ	2/16/2011
Diesel range organic	SCM	Certified	SW-846 8015C	Extraction, GC, FID	SCM09.00440	Yes	NJ	7/1/2002
Ethyl alcohol	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00470	Yes	NJ	7/1/2005
Ethylene glycol	SCM	Applied	SW-846 8015C	GC, Direct Injection, FID	SCM09.00480	No	NJ	10/7/2014
Gasoline range organic	SCM	Certified	SW-846 8015C	GC P&T, FID	SCM09.00510	Yes	NJ	7/1/2002
Iso-butyl alcohol	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00530	Yes	NJ	7/1/2002
Isopropyl alcohol	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00540	Yes	NJ	7/1/2005
Methyl alcohol (Methanol)	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00550	Yes	NJ	8/13/2003
Propyl Alcohol (n-)	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00620	Yes	NJ	2/16/2011
Propylene glycol	SCM	Applied	SW-846 8015C	GC, Direct Injection, FID	SCM09.00630	No	NJ	10/7/2014
Tert-butyl alcohol	SCM	Certified	SW-846 8015C	GC, Direct Injection or P & T, FID	SCM09.00670	Yes	NJ	7/1/2002
Butanol (1-)	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00740	Yes	NJ	7/1/2017
Diesel range organic	SCM	Certified	SW-846 8015D	Extraction, GC, FID	SCM09.00770	Yes	NJ	7/1/2017
Ethyl alcohol	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00810	Yes	NJ	7/1/2017
Ethylene glycol	SCM	Applied	SW-846 8015D	GC, Direct Injection, FID	SCM09.00820	No	NJ	7/1/2017
Gasoline range organic	SCM	Certified	SW-846 8015D	GC P&T, FID	SCM09.00850	Yes	NJ	7/1/2017
Iso-butyl alcohol	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00870	Yes	NJ	7/1/2017
Isopropyl alcohol	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00880	Yes	NJ	7/1/2017
Methyl alcohol (Methanol)	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00890	Yes	NJ	7/1/2017
Propyl Alcohol (n-)	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.00960	Yes	NJ	7/1/2017
Propylene glycol	SCM	Applied	SW-846 8015D	GC, Direct Injection, FID	SCM09.00970	No	NJ	7/1/2017
Tert-butyl alcohol	SCM	Certified	SW-846 8015D	GC, Direct Injection or P & T, FID	SCM09.01010	Yes	NJ	7/1/2017
Aldrin	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01890	Yes	NJ	7/1/2002
Alpha BHC	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01900	Yes	NJ	7/1/2002
Beta BHC	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01920	Yes	NJ	7/1/2002
Chlordane (alpha) (cis-)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01930	Yes	NJ	7/1/2002
Chlordane (gamma) (trans-)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01940	Yes	NJ	7/1/2002
Chlordane (technical)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.01950	Yes	NJ	7/1/2002
DDD (4,4'-)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02020	Yes	NJ	7/1/2002
DDE (4,4'-)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02030	Yes	NJ	7/1/2002
DDT (4,4'-)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02040	Yes	NJ	7/1/2002
Delta BHC	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02050	Yes	NJ	7/1/2002
Dieldrin	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02060	Yes	NJ	7/1/2002
Endosulfan I	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02070	Yes	NJ	7/1/2002
Endosulfan II	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02080	Yes	NJ	7/1/2002
Endosulfan sulfate	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02090	Yes	NJ	7/1/2002
Endrin	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02100	Yes	NJ	7/1/2002
Endrin aldehyde	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02110	Yes	NJ	7/1/2002
Endrin ketone	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02120	Yes	NJ	7/1/2002
Heptachlor	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02140	Yes	NJ	7/1/2002
Heptachlor epoxide	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02150	Yes	NJ	7/1/2002
Lindane (gamma BHC)	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02180	Yes	NJ	7/1/2002
Methoxychlor	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02190	Yes	NJ	7/1/2002
Mirex	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02220	Yes	NJ	4/3/2008
Toxaphene	SCM	Certified	SW-846 8081A	GC, Extraction, ECD or HECD, Capillary	SCM09.02260	Yes	NJ	7/1/2002
Alachlor	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02280	Yes	NJ	7/13/2017
Aldrin	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02290	Yes	NJ	7/1/2002
Alpha BHC	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02300	Yes	NJ	7/1/2002
Beta BHC	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02320	Yes	NJ	7/1/2002
Chlordane (alpha) (cis-)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02330	Yes	NJ	7/1/2002
Chlordane (gamma) (trans-)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02340	Yes	NJ	7/1/2002
Chlordane (technical)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02350	Yes	NJ	7/1/2002
DDD (4,4'-)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02420	Yes	NJ	7/1/2002
DDE (4,4'-)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02430	Yes	NJ	7/1/2002
DDT (4,4'-)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02440	Yes	NJ	7/1/2002
Delta BHC	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02450	Yes	NJ	7/1/2002
Dieldrin	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02460	Yes	NJ	7/1/2002
Endosulfan I	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02470	Yes	NJ	7/1/2002
Endosulfan II	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02480	Yes	NJ	7/1/2002
Endosulfan sulfate	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02490	Yes	NJ	7/1/2002

Endrin	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02500	Yes	NJ	7/1/2002
Endrin aldehyde	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02510	Yes	NJ	7/1/2002
Endrin ketone	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02520	Yes	NJ	7/1/2002
Heptachlor	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02540	Yes	NJ	7/1/2002
Heptachlor epoxide	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02550	Yes	NJ	7/1/2002
Hexachlorobenzene	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02560	Yes	NJ	9/21/2017
Lindane (gamma BHC)	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02580	Yes	NJ	7/1/2002
Methoxychlor	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02590	Yes	NJ	7/1/2002
Mirex	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02620	Yes	NJ	4/3/2008
Toxaphene	SCM	Certified	SW-846 8081B	GC, Extraction, ECD or HECD, Capillary	SCM09.02660	Yes	NJ	7/1/2002
PCB 1016	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02890	Yes	NJ	7/1/2002
PCB 1221	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02900	Yes	NJ	7/1/2002
PCB 1232	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02910	Yes	NJ	7/1/2002
PCB 1242	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02920	Yes	NJ	7/1/2002
PCB 1248	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02930	Yes	NJ	7/1/2002
PCB 1254	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02940	Yes	NJ	7/1/2002
PCB 1260	SCM	Certified	SW-846 8082	GC, Extraction, ECD or HECD, Capillary	SCM09.02950	Yes	NJ	7/1/2002
PCB 1016	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03190	Yes	NJ	7/1/2002
PCB 1221	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03200	Yes	NJ	7/1/2002
PCB 1232	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03210	Yes	NJ	7/1/2002
PCB 1242	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03220	Yes	NJ	7/1/2002
PCB 1248	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03230	Yes	NJ	7/1/2002
PCB 1254	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03240	Yes	NJ	7/1/2002
PCB 1260	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03250	Yes	NJ	7/1/2002
PCB 1262	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03260	Yes	NJ	10/12/2011
PCB 1268	SCM	Certified	SW-846 8082A	GC, Extraction, ECD or HECD, Capillary	SCM09.03270	Yes	NJ	10/12/2011
D (2,4-)	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04640	Yes	NJ	7/1/2002
Dalapon	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04650	Yes	NJ	7/1/2002
DB (2,4-)	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04660	Yes	NJ	8/13/2003
Dicamba	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04680	Yes	NJ	7/1/2002
Dichlorprop	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04700	Yes	NJ	8/13/2003
Dinoseb	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04710	Yes	NJ	7/1/2002
MCPA	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04730	Yes	NJ	8/13/2003
MCPP	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04740	Yes	NJ	8/13/2003
Pentachlorophenol	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04760	Yes	NJ	8/13/2003
Picloram	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04770	Yes	NJ	7/1/2002
T (2,4,5-)	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04780	Yes	NJ	7/1/2002
TP (2,4,5-) (Silvex)	SCM	Certified	SW-846 8151A	GC, Extraction, ECD, Capillary	SCM09.04790	Yes	NJ	7/1/2002
Acetone	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04590	Yes	NJ	7/1/2002
Acetonitrile	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04600	Yes	NJ	7/1/2004
Acrolein	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04610	Yes	NJ	7/1/2002
Acrylonitrile	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04620	Yes	NJ	7/1/2002
Allyl chloride	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04630	Yes	NJ	7/1/2005
Benzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04660	Yes	NJ	7/1/2002
Benzyl chloride	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04670	Yes	NJ	7/1/2007
Bromobenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04680	Yes	NJ	7/1/2005
Bromochloromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04690	Yes	NJ	7/1/2005
Bromodichloromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04700	Yes	NJ	7/1/2002
Bromoform	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04720	Yes	NJ	7/1/2002
Bromomethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04730	Yes	NJ	7/1/2002
Butadiene (2-chloro-1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04740	Yes	NJ	7/1/2007
Butanol (1-)	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.04750	Yes	NJ	12/2/2008
[illegible]	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04770	Yes	NJ	7/1/2002
Butylbenzene (n-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04810	Yes	NJ	7/1/2005
Carbon disulfide	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04820	Yes	NJ	7/1/2002
Carbon tetrachloride	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04830	Yes	NJ	7/1/2002
Chlorobenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04840	Yes	NJ	7/1/2002
Chloroethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04850	Yes	NJ	7/1/2002
Chloroethyl vinyl ether (2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04860	Yes	NJ	7/1/2002
Chloroform	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04870	Yes	NJ	7/1/2002
Chloromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04880	Yes	NJ	7/1/2002
Chlorotoluene (2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04890	Yes	NJ	7/1/2005
Chlorotoluene (4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04900	Yes	NJ	7/1/2005
Cyclohexane	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.04910	Yes	NJ	12/2/2008
Cyclohexanone	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04920	Yes	NJ	7/1/2005
Dibromo-3-chloropropane (1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04930	Yes	NJ	7/1/2004
Dibromochloromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04940	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04950	Yes	NJ	7/1/2004
Dibromomethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04960	Yes	NJ	12/1/2006
Dichloro-2-butene (trans-1,4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04980	Yes	NJ	7/1/2004
Dichlorobenzene (1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.04990	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05000	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05010	Yes	NJ	7/1/2002
Dichlorodifluoromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05020	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05030	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05040	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05050	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05060	Yes	NJ	7/1/2002
Dichloroethene (trans-1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05070	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05080	Yes	NJ	7/1/2002
Dichloropropane (1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05090	Yes	NJ	7/1/2005
Dichloropropane (2,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05100	Yes	NJ	7/1/2005
Dichloropropene (1,1-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05110	Yes	NJ	7/1/2005
Dichloropropene (cis-1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05120	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05130	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05140	Yes	NJ	7/1/2005
Diisopropyl Ether [DIPE]	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05150	Yes	NJ	12/1/2006
Dioxane (1,4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05160	Yes	NJ	7/1/2004
Ethanol	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05170	Yes	NJ	7/1/2007
Ethyl acetate	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05180	Yes	NJ	7/1/2005
Ethyl methacrylate	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05190	Yes	NJ	7/1/2005
Ethylbenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05200	Yes	NJ	7/1/2002
Ethyl-tert-butyl Ether [ETBE]	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05210	Yes	NJ	12/1/2006

Heptane (n-)	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05220	Yes	NJ	1/23/2012
Hexachlorobutadiene (1,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05230	Yes	NJ	7/1/2002
Hexachloroethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05240	Yes	NJ	7/1/2002
Hexane (n-)	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05250	Yes	NJ	1/23/2012
Hexanone (2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05260	Yes	NJ	7/1/2002
Iso-butyl alcohol	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05270	Yes	NJ	7/1/2005
Isopropylbenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05300	Yes	NJ	7/1/2005
Isopropyltoluene (4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05310	Yes	NJ	7/1/2005
Methacrylonitrile	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05320	Yes	NJ	7/1/2005
Methyl acetate	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05330	Yes	NJ	12/2/2008
Methyl acrylate	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05340	Yes	NJ	7/1/2007
Methyl Iodide	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05350	Yes	NJ	7/1/2004
Methyl methacrylate	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05360	Yes	NJ	7/1/2005
Methyl tert-butyl ether	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05370	Yes	NJ	7/1/2002
Methylcyclohexane	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05380	Yes	NJ	4/6/2010
Methylene chloride (Dichloromethane)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection, Capillary	SCM10.05390	Yes	NJ	7/1/2002
Naphthalene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05420	Yes	NJ	7/1/2002
Nitropropane (2-)	SCM	Certified	SW-846 8260B	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05440	Yes	NJ	12/2/2008
Pentachloroethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05470	Yes	NJ	7/1/2005
Pentanone (4-methyl-2-) (MIBK)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05490	Yes	NJ	7/1/2002
Propionitrile	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05500	Yes	NJ	7/1/2005
Propylbenzene (n-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05510	Yes	NJ	7/1/2005
Sec-butylbenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05520	Yes	NJ	7/1/2005
Styrene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05530	Yes	NJ	7/1/2002
tert-Amylmethyl ether [TAME]	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05540	Yes	NJ	12/1/2006
Tert-butyl alcohol	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05550	Yes	NJ	7/1/2004
Tert-butylbenzene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05560	Yes	NJ	7/1/2005
Tetrachloroethane (1,1,1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05570	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,2,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05580	Yes	NJ	7/1/2002
Tetrachloroethene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05590	Yes	NJ	7/1/2002
Tetrahydrofuran	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05600	Yes	NJ	7/1/2005
Toluene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05610	Yes	NJ	7/1/2002
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection, Capillary	SCM10.05630	Yes	NJ	7/1/2004
Trichlorobenzene (1,2,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05640	Yes	NJ	7/1/2005
Trichlorobenzene (1,2,4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05650	Yes	NJ	7/1/2002
Trichloroethane (1,1,1-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05660	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05670	Yes	NJ	7/1/2002
Trichloroethene	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05680	Yes	NJ	7/1/2002
Trichlorofluoromethane	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05690	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05700	Yes	NJ	7/1/2004
Trimethylbenzene (1,2,4-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05720	Yes	NJ	7/1/2005
Trimethylbenzene (1,3,5-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05730	Yes	NJ	7/1/2005
Trimethylpentane (2,2,4-)	SCM	Certified	SW-846 8260B	GC/MS, Extract or Dir Inj, Capillary	SCM10.05740	Yes	NJ	10/15/2010
Vinyl acetate	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05750	Yes	NJ	7/1/2004
Vinyl chloride	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05760	Yes	NJ	7/1/2002
Xylene (m-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05770	Yes	NJ	7/1/2005
Xylene (o-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05780	Yes	NJ	7/1/2005
Xylene (p-)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05790	Yes	NJ	7/1/2005
Xylenes (total)	SCM	Certified	SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.05800	Yes	NJ	7/1/2002
Acetone	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05810	Yes	NJ	7/1/2002
Acetonitrile	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05820	Yes	NJ	7/1/2004
Acrolein	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05830	Yes	NJ	7/1/2002
Acrylonitrile	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05840	Yes	NJ	7/1/2002
Allyl chloride	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05850	Yes	NJ	7/1/2005
Benzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05870	Yes	NJ	7/1/2002
Benzyl chloride	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05880	Yes	NJ	7/1/2007
Bromobenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05890	Yes	NJ	7/1/2005
Bromochloromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05900	Yes	NJ	7/1/2005
Bromodichloromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05910	Yes	NJ	7/1/2002
Bromoform	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05930	Yes	NJ	7/1/2002
Bromomethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05940	Yes	NJ	7/1/2002
Butadiene (2-chloro-1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05950	Yes	NJ	7/1/2007
Butanol (1-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05960	Yes	NJ	12/2/2008
Butanol (3,3-Dimethyl-1-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05970	Yes	NJ	9/8/2016
[illegible]	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.05980	Yes	NJ	7/1/2002
Butyl formate (t-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.05990	Yes	NJ	9/8/2016
Butylbenzene (n-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06020	Yes	NJ	7/1/2005
Carbon disulfide	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06030	Yes	NJ	7/1/2002
Carbon tetrachloride	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06040	Yes	NJ	7/1/2002
Chlorobenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06050	Yes	NJ	7/1/2002
Chloroethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06060	Yes	NJ	7/1/2002
Chloroethyl vinyl ether (2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06070	Yes	NJ	7/1/2002
Chloroform	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06080	Yes	NJ	7/1/2002
Chloromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06090	Yes	NJ	7/1/2002
Chlorotoluene (2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06100	Yes	NJ	7/1/2005
Chlorotoluene (4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06110	Yes	NJ	7/1/2005
Cyclohexane	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06130	Yes	NJ	12/2/2008
Cyclohexanone	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06140	Yes	NJ	7/1/2005
Dibromo-3-chloropropane (1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06150	Yes	NJ	7/1/2004
Dibromochloromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06160	Yes	NJ	7/1/2002
Dibromoethane (1,2-) (EDB)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06170	Yes	NJ	7/1/2004
Dibromomethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06180	Yes	NJ	12/1/2006
Dichloro-2-butene (trans-1,4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06200	Yes	NJ	7/1/2004
Dichlorobenzene (1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06210	Yes	NJ	7/1/2002
Dichlorobenzene (1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06220	Yes	NJ	7/1/2002
Dichlorobenzene (1,4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06230	Yes	NJ	7/1/2002
Dichlorodifluoromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06240	Yes	NJ	7/1/2002
Dichloroethane (1,1-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06250	Yes	NJ	7/1/2002
Dichloroethane (1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06260	Yes	NJ	7/1/2002
Dichloroethene (1,1-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06270	Yes	NJ	7/1/2002
Dichloroethene (cis-1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06280	Yes	NJ	7/1/2002

Dichloroethene (trans-1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06290	Yes	NJ	7/1/2002
Dichloropropane (1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06300	Yes	NJ	7/1/2002
Dichloropropane (1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06310	Yes	NJ	7/1/2005
Dichloropropane (2,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06320	Yes	NJ	7/1/2005
Dichloropropene (1,1-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06330	Yes	NJ	7/1/2005
Dichloropropene (cis-1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06340	Yes	NJ	7/1/2002
Dichloropropene (trans-1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06350	Yes	NJ	7/1/2002
Diethyl ether (Ethyl ether)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06360	Yes	NJ	7/1/2005
Diisopropyl Ether [DIPE]	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06370	Yes	NJ	12/1/2006
Dioxane (1,4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06380	Yes	NJ	7/1/2004
Ethanol	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06390	Yes	NJ	7/1/2007
Ethyl acetate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06400	Yes	NJ	7/1/2005
Ethyl methacrylate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06410	Yes	NJ	7/1/2005
Ethylbenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06420	Yes	NJ	7/1/2002
Ethyl-tert-butyl Ether [ETBE]	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06430	Yes	NJ	12/1/2006
Heptane (n-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06440	Yes	NJ	1/23/2012
Hexachlorobutadiene (1,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06450	Yes	NJ	7/1/2002
Hexachloroethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06460	Yes	NJ	7/1/2002
Hexane (n-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06470	Yes	NJ	1/23/2012
Hexanone (2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06480	Yes	NJ	7/1/2002
Iso-butyl alcohol	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06490	Yes	NJ	7/1/2005
Isopropyl acetate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06510	Yes	NJ	9/8/2016
Isopropylbenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06520	Yes	NJ	7/1/2005
Isopropyltoluene (4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06530	Yes	NJ	7/1/2005
Methacrylonitrile	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06540	Yes	NJ	7/1/2005
Methyl acetate	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06550	Yes	NJ	12/2/2008
Methyl acrylate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06560	Yes	NJ	7/1/2007
Methyl Iodide	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06570	Yes	NJ	7/1/2004
Methyl methacrylate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06580	Yes	NJ	7/1/2005
Methyl tert-butyl ether	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06590	Yes	NJ	7/1/2002
Methylcyclohexane	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06600	Yes	NJ	4/6/2010
Methylene chloride (Dichloromethane)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection, Capillary	SCM10.06610	Yes	NJ	7/1/2002
Naphthalene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06640	Yes	NJ	7/1/2002
Nitropropane (2-)	SCM	Certified	SW-846 8260C	GC/MS, P&T, or Direct Injection, Capillary	SCM10.06660	Yes	NJ	12/2/2008
Pentachloroethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06690	Yes	NJ	7/1/2005
Pentanone (4-methyl-2-) (MIBK)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06710	Yes	NJ	7/1/2002
Propionitrile	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06720	Yes	NJ	7/1/2005
Propylbenzene (n-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06730	Yes	NJ	7/1/2005
Sec-butylbenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06740	Yes	NJ	7/1/2005
Styrene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06750	Yes	NJ	7/1/2002
tert-Amylmethyl ether [TAME]	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06760	Yes	NJ	12/1/2006
Tert-butyl alcohol	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06780	Yes	NJ	7/1/2004
Tert-butylbenzene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06790	Yes	NJ	7/1/2005
Tetrachloroethane (1,1,1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06800	Yes	NJ	7/1/2002
Tetrachloroethane (1,1,2,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06810	Yes	NJ	7/1/2002
Tetrachloroethene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06820	Yes	NJ	7/1/2002
Tetrahydrofuran	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06830	Yes	NJ	7/1/2005
Toluene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06840	Yes	NJ	7/1/2002
Trichloro (1,1,2-) trifluoroethane (1,2,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection, Capillary	SCM10.06860	Yes	NJ	7/1/2004
Trichlorobenzene (1,2,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06870	Yes	NJ	7/1/2005
Trichlorobenzene (1,2,4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06880	Yes	NJ	7/1/2002
Trichloroethane (1,1,1-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06890	Yes	NJ	7/1/2002
Trichloroethane (1,1,2-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06900	Yes	NJ	7/1/2002
Trichloroethene	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06910	Yes	NJ	7/1/2002
Trichlorofluoromethane	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06920	Yes	NJ	7/1/2002
Trichloropropane (1,2,3-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06930	Yes	NJ	7/1/2004
Trimethylbenzene (1,2,4-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06950	Yes	NJ	7/1/2005
Trimethylbenzene (1,3,5-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06960	Yes	NJ	7/1/2005
Trimethylpentane (2,2,4-)	SCM	Certified	SW-846 8260C	GC/MS, Extract or Dir Inj, Capillary	SCM10.06970	Yes	NJ	10/15/2010
Vinyl acetate	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06980	Yes	NJ	7/1/2004
Vinyl chloride	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.06990	Yes	NJ	7/1/2002
Xylene (m-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.07000	Yes	NJ	7/1/2005
Xylene (o-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.07010	Yes	NJ	7/1/2005
Xylene (p-)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.07020	Yes	NJ	7/1/2005
Xylenes (total)	SCM	Certified	SW-846 8260C	GC/MS, P & T or Direct Injection,	SCM10.07030	Yes	NJ	7/1/2002
Dioxane (1,4-)	SCM	Certified	SW-846 8260C	GC/MS/SIM, P & T or Direct Injection,	SCM10.07035	Yes	NJ	9/8/2016
Acenaphthene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09230	Yes	NJ	7/1/2002
Acenaphthylene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09240	Yes	NJ	7/1/2002
Acetophenone	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09250	Yes	NJ	7/1/2005
Acetylaminofluorene (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09260	Yes	NJ	7/1/2005
Alpha - terpineol	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09280	Yes	NJ	7/1/2005
Aminobiphenyl (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09300	Yes	NJ	7/1/2005
Aniline	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09320	Yes	NJ	7/1/2004
Anthracene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09330	Yes	NJ	7/1/2002
Aramite	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09340	Yes	NJ	9/8/2016
Atrazine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09350	Yes	NJ	11/17/2009
Benzaldehyde	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09370	Yes	NJ	11/17/2009
Benzenethiol	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09380	Yes	NJ	9/8/2016
Benzidine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09390	Yes	NJ	7/1/2004
Benzo(a)anthracene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09400	Yes	NJ	7/1/2002
Benzo(a)pyrene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09410	Yes	NJ	7/1/2002
Benzo(b)fluoranthene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09420	Yes	NJ	7/1/2002
Benzo(ghi)perylene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09430	Yes	NJ	7/1/2002
Benzo(k)fluoranthene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09450	Yes	NJ	7/1/2002
Benzoic acid	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09460	Yes	NJ	7/1/2004
Benzyl alcohol	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09480	Yes	NJ	7/1/2005
Biphenyl (1,1'-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09510	Yes	NJ	11/17/2009
Bis (2-chloroethoxy) methane	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09520	Yes	NJ	7/1/2002
Bis (2-chloroethyl) ether	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09530	Yes	NJ	7/1/2002
Bis(2-chloroisopropyl)ether[2,2'-oxybis(1-chloropropane)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09540	Yes	NJ	7/1/2002

Bis (2-ethylhexyl) phthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09550	Yes	NJ	7/1/2002
Bromophenyl-phenyl ether (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09560	Yes	NJ	7/1/2002
Butylbenzylphthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09570	Yes	NJ	7/1/2002
Caprolactam	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09580	Yes	NJ	11/17/2009
Carbazole	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09590	Yes	NJ	7/1/2002
Chloroaniline (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09630	Yes	NJ	7/1/2002
Chlorobenzilate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09640	Yes	NJ	7/1/2005
Chloronaphthalene (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09660	Yes	NJ	7/1/2002
Chlorophenol (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09670	Yes	NJ	7/1/2002
Chlorophenyl-phenyl ether (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09680	Yes	NJ	7/1/2002
Chrysene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09690	Yes	NJ	7/1/2002
Decane (n-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09730	Yes	NJ	10/15/2010
Dialiate (cis)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09750	Yes	NJ	12/1/2006
Dialiate (trans)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09760	Yes	NJ	12/1/2006
Dibenz(a,h)acridine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09770	Yes	NJ	12/1/2006
Dibenzo(a,h)anthracene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09800	Yes	NJ	7/1/2002
Dibenzofuran	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09840	Yes	NJ	7/1/2002
Dichlorobenzene (1,2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09850	Yes	NJ	7/1/2004
Dichlorobenzene (1,3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09860	Yes	NJ	7/1/2004
Dichlorobenzene (1,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09870	Yes	NJ	7/1/2002
Dichlorobenzidine (3,3'-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09880	Yes	NJ	7/1/2002
Dichlorophenol (2,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09890	Yes	NJ	7/1/2002
Dichlorophenol (2,6-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09900	Yes	NJ	12/1/2006
Diethyl phthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09920	Yes	NJ	7/1/2002
Dimethoate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09930	Yes	NJ	12/1/2006
Dimethyl phthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09950	Yes	NJ	7/1/2002
Dimethylaminoazobenzene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.09960	Yes	NJ	12/1/2006
[illegible]	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10010	Yes	NJ	12/1/2006
Dimethylphenol (2,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10020	Yes	NJ	7/1/2002
Di-n-butyl phthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10030	Yes	NJ	7/1/2002
Dinitrobenzene (1,3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10040	Yes	NJ	12/1/2006
Dinitrophenol (2,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10060	Yes	NJ	7/1/2002
Dinitrophenol (2-methyl-4,6-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10070	Yes	NJ	7/1/2002
Dinitrotoluene (2,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10080	Yes	NJ	7/1/2002
Dinitrotoluene (2,6-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10090	Yes	NJ	7/1/2002
Di-n-octyl phthalate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10100	Yes	NJ	7/1/2002
Dinoseb	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10110	Yes	NJ	7/1/2005
Diphenylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10120	Yes	NJ	7/1/2002
Diphenylhydrazine (1,2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10130	Yes	NJ	12/1/2006
Disulfoton	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10140	Yes	NJ	7/1/2005
Famphur	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10220	Yes	NJ	9/8/2016
Fluoranthene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10230	Yes	NJ	7/1/2002
Fluorene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10240	Yes	NJ	7/1/2002
Hexachlorobenzene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10270	Yes	NJ	7/1/2002
Hexachlorobutadiene (1,3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10280	Yes	NJ	7/1/2002
Hexachlorocyclopentadiene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10290	Yes	NJ	7/1/2002
Hexachloroethane	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10300	Yes	NJ	7/1/2002
Hexachloropropene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10320	Yes	NJ	7/1/2002
Hydroquinone	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10330	Yes	NJ	2/4/2010
Indene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10340	Yes	NJ	9/8/2016
Indeno(1,2,3-cd)pyrene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10350	Yes	NJ	7/1/2002
Isodrin	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10360	Yes	NJ	7/1/2005
Isophorone	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10370	Yes	NJ	7/1/2002
Isosafrole (cis-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10380	Yes	NJ	12/1/2006
Isosafrole (trans-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10390	Yes	NJ	12/1/2006
Kepone	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10400	Yes	NJ	7/1/2005
Methanesulfonate (Ethyl-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10420	Yes	NJ	12/1/2006
Methanesulfonate (Methyl-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10430	Yes	NJ	12/1/2006
Methapyrilene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10440	Yes	NJ	9/8/2016
Methyl phenol (4-chloro-3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10460	Yes	NJ	7/1/2002
Methylcholanthrene (3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10470	Yes	NJ	4/23/2009
Methylnaphthalene (1-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10480	Yes	NJ	1/23/2009
Methylnaphthalene (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10490	Yes	NJ	7/1/2002
Methylphenol (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10500	Yes	NJ	7/1/2002
Methylphenol (3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10510	Yes	NJ	7/1/2002
Methylphenol (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10520	Yes	NJ	7/1/2002
Naphthalene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10530	Yes	NJ	7/1/2002
Napthoquinone (1,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10540	Yes	NJ	12/1/2006
Napthylamine (1-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10550	Yes	NJ	12/1/2006
Napthylamine (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10560	Yes	NJ	12/1/2006
Nitroaniline (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10570	Yes	NJ	7/1/2002
Nitroaniline (3-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10580	Yes	NJ	7/1/2002
Nitroaniline (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10590	Yes	NJ	7/1/2002
Nitrobenzene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10600	Yes	NJ	7/1/2002
Nitrophenol (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10620	Yes	NJ	7/1/2002
Nitrophenol (4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10630	Yes	NJ	7/1/2002
N-Nitrosodiethylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10640	Yes	NJ	7/1/2004
N-Nitrosodimethylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10650	Yes	NJ	7/1/2005
N-Nitroso-di-n-butylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10660	Yes	NJ	7/1/2005
N-Nitroso-di-n-propylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10670	Yes	NJ	7/1/2004
N-Nitrosodiphenylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10680	Yes	NJ	7/1/2002
N-Nitrosomethylethylamine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10690	Yes	NJ	7/1/2005
N-Nitrosomorpholine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10700	Yes	NJ	7/1/2005
N-Nitrosopiperidine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10710	Yes	NJ	12/1/2006
N-Nitrosopyrrolidine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10720	Yes	NJ	7/1/2005
Octadecane (n-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10730	Yes	NJ	10/15/2010
Parathion	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10740	Yes	NJ	7/1/2005
Parathion methyl	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10750	Yes	NJ	7/1/2005
Pentachlorobenzene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10830	Yes	NJ	7/1/2005
Pentachloroethane	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10840	Yes	NJ	7/1/2007
Pentachloronitrobenzene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10850	Yes	NJ	7/1/2005
Pentachlorophenol	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10860	Yes	NJ	7/1/2002
Phenacetin	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10870	Yes	NJ	12/1/2006

Phenanthrene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10880	Yes	NJ	7/1/2002
Phenol	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10890	Yes	NJ	7/1/2002
Phenylenediamine (1,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10900	Yes	NJ	9/8/2016
Phenylethylamine (alpha, alpha-Dimethyl)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10910	Yes	NJ	12/1/2006
Phorate	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10920	Yes	NJ	7/1/2005
Phosphorothioate (O,O,O-triethyl)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10930	Yes	NJ	12/1/2006
Phosphorothioate (diethyl-O-2-pyrazinyl) [Thionazin]	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10940	Yes	NJ	12/1/2006
Picoline (2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10950	Yes	NJ	7/1/2005
Pronamide	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10960	Yes	NJ	7/1/2005
Pyrene	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10970	Yes	NJ	7/1/2002
Pyridine	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10980	Yes	NJ	7/1/2002
Quinoline	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.10990	Yes	NJ	9/8/2016
Quinoline -1-Oxide (4-Nitro)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11000	Yes	NJ	12/1/2006
Safrole	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11010	Yes	NJ	12/1/2006
Tetrachlorobenzene (1,2,4,5-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11060	Yes	NJ	7/1/2005
Tetrachlorophenol (2,3,4,6-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11070	Yes	NJ	12/1/2006
Toluidine (2-) (2-Methylaniline)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11080	Yes	NJ	7/1/2005
Toluidine (5-nitro-2-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11100	Yes	NJ	12/1/2006
Trichlorobenzene (1,2,4-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11120	Yes	NJ	7/1/2002
Trichlorophenol (2,4,5-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11130	Yes	NJ	7/1/2002
Trichlorophenol (2,4,6-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11140	Yes	NJ	7/1/2002
Trinitrobenzene (1,3,5-)	SCM	Certified	SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.11160	Yes	NJ	12/1/2006
Acenaphthene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11170	Yes	NJ	5/18/2015
Acenaphthylene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11180	Yes	NJ	5/18/2015
Anthracene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11190	Yes	NJ	5/18/2015
Benzo(a)anthracene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11200	Yes	NJ	1/2/2007
Benzo(a)pyrene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11210	Yes	NJ	1/2/2007
Benzo(b)fluoranthene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11220	Yes	NJ	1/2/2007
Benzo(ghi)perylene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11230	Yes	NJ	5/18/2015
Benzo(k)fluoranthene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11240	Yes	NJ	1/2/2007
Chrysene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11250	Yes	NJ	5/18/2015
Dibenzo(a,h)anthracene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11260	Yes	NJ	1/2/2007
Dinitrophenol (2-methyl-4,6-)	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11270	No	NJ	12/1/2015
Dioxane (1,4-)	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11274	Yes	NJ	1/18/2017
Fluoranthene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11280	Yes	NJ	5/18/2015
Fluorene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11290	Yes	NJ	5/18/2015
Hexachlorobenzene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11300	Yes	NJ	1/2/2007
Hexachlorobutadiene (1,3-)	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11310	Yes	NJ	12/1/2015
Indeno(1,2,3-cd)pyrene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11320	Yes	NJ	1/2/2007
Methylnaphthalene (2-)	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11340	Yes	NJ	5/18/2015
Naphthalene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11350	Yes	NJ	5/18/2015
Pentachlorophenol	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11370	Yes	NJ	1/2/2007
Phenanthrene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11380	Yes	NJ	5/18/2015
Pyrene	SCM	Certified	SW-846 8270D	GC/MS/SIM, Extract or Dir Inj, Capillary	SCM10.11390	Yes	NJ	5/18/2015
Dioxane (1,4-)	SCM	Certified	User Defined SW-846 8270D	GC/MS, Extract or Dir Inj, Capillary	SCM10.12330	Yes	NJ	1/23/2012
1,1,1-Trifluoroethane	SCM	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.12810	Yes	NJ	7/26/2013
1-Chloro-1,1-difluoroethane	SCM	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.12820	Yes	NJ	7/26/2013
1,1-Dichloro-1-fluoroethane	SCM	Certified	User Defined SW-846 8260B	GC/MS, P & T or Direct Injection,	SCM10.12824	Yes	NJ	7/26/2013
Ethylene glycol	SCM	Certified	User Defined SW-846 8260B	GC/MS/SIM, Direct Aqueous Injection	SCM10.12860	Yes	NJ	11/12/2008
Propylene glycol	SCM	Certified	User Defined SW-846 8260B	GC/MS/SIM, Direct Aqueous Injection	SCM10.12870	Yes	NJ	11/12/2008
Diesel range organic	SCM	Certified	User Defined TCEQ 1005	Extraction, GC, FID	SCM14.00920	Yes	NJ	10/15/2010
Perchlorate	SCM	Certified	User Defined EPA 314	Ion Chromatography	SCM14.01940	Yes	NJ	10/6/2010

Method Capabilities—Non-NELAP Methods

Analytes	Method Number	Program	Chemistry Field
Phenols	EPA 420.4	Drinking Water	Inorganic Analysis
Carbon Dioxide	SM 4500-CO_2 C or D	Wastewater	Inorganic Analysis
Iodide	SM 4500-I B	Wastewater	Inorganic Analysis
Nonionic Surfactants as CTAS	SM 5540 D	Wastewater	Inorganic Analysis
Particulate Matter	EPA 160.2M	Wastewater	Inorganic Analysis
Phosphorus, Hydrolyzable	EPA 365.3	Wastewater	Inorganic Analysis
Redox Potential vs H^+	ASTM D1498-76	Wastewater	Inorganic Analysis
Specific Gravity	ASTM D1298-85	Wastewater	Inorganic Analysis
Total Organic Content	ASTM D2974-87	Wastewater	Inorganic Analysis
Unburned Combustibles	EPA 160.1+160.4	Wastewater	Inorganic Analysis
Viscosity	ASTM D445/6	Wastewater	Inorganic Analysis
Volatile Suspended Solids	EPA 160.2+160.4	Wastewater	Inorganic Analysis
Weak Acid Dissociable Cyanide Prep	SM 4500-CN I	Wastewater	Inorganic Analysis
Ammonia	EPA 350.1M	Solid/Haz. Waste	Inorganic Analysis
Ammonia	EPA 350.2M	Solid/Haz. Waste	Inorganic Analysis
Base Sediment	ASTM D473-81	Solid/Haz. Waste	Inorganic Analysis
Bulk Density (Dry Basis)	ASTM D2937-94M	Solid/Haz. Waste	Inorganic Analysis
Chemical Oxygen Demand	HACH 8000M	Solid/Haz. Waste	Inorganic Analysis
Chloride	EPA 325.3M	Solid/Haz. Waste	Inorganic Analysis
Grain Size & Sieve Testing	ASTM D422-63	Solid/Haz. Waste	Inorganic Analysis
Heat Content, BTU	ASTM D3286-85	Solid/Haz. Waste	Inorganic Analysis
Ignitability (Flashpoint)	ASTM D93-90/SW846 Ch 7	Solid/Haz. Waste	Inorganic Analysis
Multiple Extractions	SW846 1320	Solid/Haz. Waste	Inorganic Analysis
Neutral Leaching Procedure	ASTM D3987-85	Solid/Haz. Waste	Inorganic Analysis
Nitrate/Nitrite	EPA 353.2M	Solid/Haz. Waste	Inorganic Analysis
Organic Matter (Ignition Loss)	AASHTO T267-86M	Solid/Haz. Waste	Inorganic Analysis
Orthophosphate	EPA 365.2M	Solid/Haz. Waste	Inorganic Analysis
Percent Ash (Dry Basis)	ASTM D482-91	Solid/Haz. Waste	Inorganic Analysis
Percent Solids	ASTM D4643-00	Solid/Haz. Waste	Inorganic Analysis
Percent Sulfur	ASTM D129-61	Solid/Haz. Waste	Inorganic Analysis
Phosphorus, Total	EPA 365.3M	Solid/Haz. Waste	Inorganic Analysis
Phosphorus, Hydrolyzable	EPA 365.3M	Solid/Haz. Waste	Inorganic Analysis
Pour Point	ASTM D97-87	Solid/Haz. Waste	Inorganic Analysis
Reactive Cyanide	SW846 7.3.3.2	Solid/Haz. Waste	Inorganic Analysis

Method Capabilities—Non-NELAP Methods

Analytes	Method Number	Program	Chemistry Field
Reactive Sulfide	SW846 7.3.4.2	Solid/Haz. Waste	Inorganic Analysis
Redox Potential vs H^+	ASTM D1498-76M	Solid/Haz. Waste	Inorganic Analysis
Specific Gravity of Solids	ASTM D1429-86M	Solid/Haz. Waste	Inorganic Analysis
Sulfide (S)	EPA 376.1 M	Solid/Haz. Waste	Inorganic Analysis
Sulfite (SO_3)	EPA 377.1M	Solid/Haz. Waste	Inorganic Analysis
Total Chlorine	ASTM D808-91	Solid/Haz. Waste	Inorganic Analysis
Total Kjeldahl Nitrogen	EPA 351.2M	Solid/Haz. Waste	Inorganic Analysis
Total Organic Carbon	CORP ENG 81	Solid/Haz. Waste	Inorganic Analysis
Total Organic Carbon	LLOYD KAHN 1988	Solid/Haz. Waste	Inorganic Analysis
Total Organic Chlorine	ASTM D808-91M	Solid/Haz. Waste	Inorganic Analysis
Total Plate Count	SM 9215BM	Solid/Haz. Waste	Inorganic Analysis
Total Volatile Solids	EPA 160.4M	Solid/Haz. Waste	Inorganic Analysis
Water Content	ASTM D95-83	Solid/Haz. Waste	Inorganic Analysis

Appendix IV

Laboratory Equipment

Equipment (Air Lab)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
GC-AA	GC Agilent 7890A/FID	CN10361127	HP Chemstation	HP Enviroquant	Air Laboratory	N/A
GC-J			HP Chemstation	HP Enviroquant	Air Laboratory	N/A
GCMS- 5W	Agilent Technologies 5975C / 7890A / Entech7200pre-concentrator pre-concentrator	US13207902/CN13141001/1123	HP Chemstation	HP Chemstation	Air Laboratory	2013
GCMS-2W	Agilent Technologies 5975C / 7890A Entech 7016CA	CN10361158 / US10323601 / CN10361158	HP Chemstation	HP Enviroquant	Air Laboratory	2012
GCMS-3W	Agilent Technologies 5973 / 6890N Entech 7016A	CN10425086 / US41746669 / 1351	HP Chemstation	HP Enviroquant	Air Laboratory	2007
GCMS-Q	Hewlett-Packard 5890ll / 5971 MSD / Entech Air Samp 7000	3033A31092 / 3188A02934	HP Chemstation	HP Enviroquant	Air Laboratory	1993
GCMS-W	Agilent Technologies 5973 / 6890N AS Entech 7016CA	US44621451 / CN10517032 / 1119	HP Chemstation	HP Enviroquant	Air Laboratory	2005
GC-QT	Agilent 6890 / PID / FID / Entech 7032AB-L	US10148124/1176	HP Chemstation	HP Enviroquant	Air Laboratory	2010
GC-WW	Hewlett-Packard6890 / PID	US00010037	HP Chemstation	HP Enviroquant	Air Laboratory	2010
GCMS – 6W			HP Chemstation	HP Enviroquant	Air Laboratory	
OVEN – 10A	Entech 3100A Canister cleaner	0404-4596	None	None	Air Laboratory	N/A
OVEN – 10C	Entech 3100A Canister cleaner	0404-4597	None	None	Air Laboratory	N/A
OVEN – 10E	Entech 3100A Canister cleaner	N/A	None	None	Air Laboratory	N/A
OVEN -10F	Entech 3100A Canister cleaner	N/A	None	None	Air Laboratory	N/A
Test Gauge	Ashcroft (TG-1)	None	None	None	Air Laboratory	N/A
Test Gauge	Ashcroft (TG-2)	None	None	None	Air Laboratory	N/A
Test Gauge	Ashcroft (TG-3)	None	None	None	Air Laboratory	N/A
Test Gauge	Ashcroft (TG-4)	None	None	None	Air Laboratory	N/A

Flow Meters	Flow Professor	FP1, FP2, FP3, FP4	None	None	Air Laboratory	N/A
Equipment (Air Lab, cont'd)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
Cleaning System	Entech		None	None		
Tube Conditioner	Markes International TC-20	R-10659	None	None		
Wrist Action Shaker	Burrell Model 75		None	None		
Cleaning System-1	Entech 3100A	1064	None	None		

Equipment (General Chemistry Lab)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
DO Meter	YSI-51B	92A035818	None	None	Field Serv.	1998
DO Meter	YSI-55/12ft	00C0598BG	None	None	Field Serv.	2000
PH Meter-10	YSI	JC02538	None	None	Field Serv.	2007
PH Meter-11	YSI	JC02540	None	None	Field Serv.	2010
PH Meter-9	Orion 250A	O18019	None	None	Field Serv.	2007
SCON Meter	YSI-30	J0183	None	None	Field Serv.	2004
Balance- Top Load	Ohaus Adventure AV212 (B-36)	8029131104	None	None	IC Lab	2008
Balance- Analytical	Ohaus Adventurer (B-24)	1225032523P	None	None	Inorganics	2004
Balance- Analytical (B-5)	Mettler AE 160 (B-5)	C11620	None	None	Inorganics	1999
Balance- Top Load (B-43)	Ohaus Adv. Pro (B43)	8032501223	None	None	Inorganics	2012
Balance- Top Load (B-14)	Denver Inst. Co. XL500 (B-14)	B045530	None	None	Inorganics	Pre-2000
Balance- Top Load (B-52)	Ohaus Adv. Pro (B52)	B334691952	None	None	Inorganics	2013
Balance- Top Load (B-16)	Ohaus Explorer (B-16)	E1581119212171	None	None	Inorganics	2001
Balance- Top Load (B-21)	Ohaus Adventurer (B-21)	E1021218270448	None	None	Inorganics	2001
Balance- Top Load (B-27)	Ohaus Adventurer AV412 (B-27)	8026251106	None	None	Inorganics	2005
Balance- Top Load (B-32)	Sartorius TE31025 (B-32)	21950273	None	None	Inorganics	2007
Balance- Top Load (B-39)	Denver P-214 (B-39)	25450279	None	None	Inorganics	2010
Balance- Top Load (B-53)	A+D HR-250A (B-53)	687601248	None	None	Inorganics	2012
Balance- Top	Ohaus Adv. Pro (B-37)	8029161122	None	None	Inorganics	2013

Load (B-37)						
Equipment (General Chem Lab, cont'd)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
Balance- Top Load(B-51)	(B-51)		None	None		
Calorimeter	PARR 1261EA	1499	None	None	Inorganics	1996
COD Block	HACH DRB200	11020C0029	None	None	Inorganics	2010
Distillation Block 1	Lachat Micro Distillation system	A2000738	None	None	Inorganics	2010
Distillation Block 2	Lachat Micro Distillation system	A2000726	None	None	Inorganics	2010
Distillation Block 3	Lachat Micro Distillation system	A2000807	None	None	Inorganics	2010
DO Meter	YSI 5000	07B1560	None	None	Inorganics	2008
FIA Analyzer	Lachat Quikchem 8000	13200001620	None	None	Inorganics	
Flashpoint	Koehler – K16200	R07002295	None	None	Inorganics	2010
Flashpoint	Koehler – K16200	R07002563B	None	None	Inorganics	2010
IC-2	Dionex ICS2000	2090737	Dionex Chrom. Client	Dionex Chrom. Client	Inorganics	2004
IC-3	Dionex ICS2000	2110028	Dionex Chrom. Client	Dionex Chrom. Client	Inorganics	2004
IC-4	Dionex ICS2000	4060060	Dionex Chrom. Client	Dionex Chrom. Client	Inorganics	2004
IC-6	Dionex ICS3000	Column 6040160	Dionex Chrom. Client	Dionex Chrom. Client	Inorganics	2006
IC-7	Dionex IC5000+	Pump-13120208, IC-7 7199, IC-A (2187), Column 13117597	Dionex Chrom. Client	Dionex Chrom. Client	Inorganics	2013
IC-8	Dionex IC5000, 5000-1	Column 10120556				

Equipment (General Chem Lab, cont'd))	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
IC-9	IC5000, 5000-3	Column 11090696				
IC-B	IC- 2100 Fatty Acids	11090126				
Seal Analyzer	Discreet Analyzer (AQ-2)	190185				
IR Spec.	Buck Scientific HC-404	687	None	None	Inorganics	1997
Oven (Inc-21)	Fisher	N/A	None	None	Inorganics	2014
Oven (Inc-7)	Precision	699030922	None	None	Inorganics	2014
Oven Inc 19	Total Dissolved Solids(180°C)	20-2100149111	None	None	Inorganics	2014
PH Meter-46	Thermo Orion 4 Star	B10299	None	None	Inorganics	2008
PH Meter-47	Thermo Orion 4 Star	B04869	None	None	Inorganics	2008
PH Meter-50	Orion Star Series	B27564	None	None	Inorganics	2010
pH Meter-53	VWR Symphony B10P	1223350009	None	None	Inorganics	2013
PH Meter-54	Thermo Orion 710A	X08035	None	None	Inorganics	2013
PH Meter-55	Thermo-Orion	X10686	None	None	Inorganics	2014
pH Meter-57	VWR Symphony B10P	1411150002	None	None	Inorganics	2014
pH Meter-59	VWR Symphony B10P	14087S0006	None	None	Inorganics	2014
pH Meter-60	VWR Symphony B10P	1413950006	None	None	Inorganics	2014
pH-eH Meter-22	Thermo Orion 4 Star	SN00742	None	None	Inorganics	2008
pH Meter-62	VWR Symphony B10P		None	None		
SCON Meter	Amber Science 1056	01020851056-101	None	None	Inorganics	2001
SCON Meter	Orion 145+	78035	None	None	Inorganics	2004
Solvent Evaporator	Horizon SPE-DEX 3000XL	09-1031	None	None	Inorganics	2010
Solvent Evaporator	Horizon SPEED VAP III	09-0739	None	None	Inorganics	2010

Equipment (General Chem Lab cont'd)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchase
TCLP Rotator 4	Assoc. Design and Mfg. Co. 3740-24-BRE-TM	N/A	None	None	Inorganics	2000
TCLP Rotator 5	Analytical Testing Corp. 42R5BCI-E3	0685KZJP0013	None	None	Inorganics	2002
TCLP Rotator 7&8	Assoc. Design and Mfg. Co. 3740-48BRE	N/A	None	None	Inorganics	2000
TCLP Rotator 9&10	Assoc. Design and Mfg. Co. 3740-48BRE	2132337	None	None	Inorganics	1996
TOC-L Analyzer	Shimadzu TOC-L	H52516900071	Shimadzu TOC Control	Shamadzu TOC Control	Inorganics	2012
TOC-L Analyzer	Shimadzu TOC-L	H52515000114NK	Shimadzu TOC Control	Shamadzu TOC Control	Inorganics	2013
TOC-V Analyzer	Shimadzu TOC-V CSH	H52504400192NK	Shimadzu TOC Control	Shimadzu TOC Control	Inorganics	2007
TOX Analyzer	Mitsubishi TOX-100	N/A	None	None	Inorganics	1996
TOX Analyzer	Mitsubishi TOX-100	A7M 42997	None	None	Inorganics	2008
UVVIS Spec E	Spectronix 20 Genesys	3SGD.352011	None	None	Inorganics	2007
UVVIS Spec J	Thermo Electron Corp. Genesys 20	3SGQ235018	None	None	Inorganics	20012
UVVIS Spec L	Thermo Electron Corp. Genesys 20	3SGS073003	None	None	Inorganics	2014
UVVIS Spec M	Spectronix 20 Genesys	3SG82480005	None	None	Inorganics	2013
UVVIS Spec N	Spectronix 20 Genesys	3SGS247010	None	None	Inorganics	2013
Pensky Martens	Pensky Martens 35000-0	1043454	None	None		
Lachat Module	Lachat Ammonia Distillation Module	16-107-06-S-J	None	None		

Equipment (General Chem Lab cont'd)	Manufacture & Description	Serial Number	Operating System Software	Data Processing Software	Location	Purchased
TOC Analyzer	Scimadzu	H544114900158 AE	None	None		
TOC Analyzer	Scimadzu, Autosampler	H571149000354 SA	None	None		
TOC Analyzer	Scimadzu, Autosampler	52514900066 NK	None	None		
PH Meter-23	Thermo Orion Model 310	SN013786	None	None	Inorganics	2008
Hot Block 8	Environmental Express	N/A	None	None	Mercury Prep	
Hot Block 7	Environmental Express	N/A	None	None	Mercury Prep	
Automatic Pensky Martens	Seta PM-93 Flash Point Closed Cup Tester	1043454	None	None	Gen Chem	2017

Equipment (Metals)	Manufacturer & Description	Serial Number	Operating System	Data Processing System	Location	Purchase
ICP	Thermo ICP 6500 Duo	ICP-20074909	ITEVA	ITEVA	Metals	2007
ICP	Thermo ICP 6500 Duo	ICP-20114506	ITEVA	ITEVA	Metals	2011
ICP	Thermo ICP 6500 Duo	ICP-20072601	ITEVA	ITEVA	Metals Analysis	2007
ICP	Thermo ICP 6500 Duo	IC5D20122506	ITEVA	ITEVA	Metals Analysis	2012
ICP	Thermo ICP 6500 Duo	IC76DC134708	ITEVA/QTEGRA	ITEVA/QTEGRA	Metals Analysis	2014
ICP-MS	Agilent 7700 Series	JP12412081	MassHunter Workstation	MassHunter Workstation	Metals Analysis	2014
ICP-MS	Agilent 7700 Series	JP10340551	MassHunter Workstation	MassHunter Workstation	Metals Analysis	2010
ICP Auto-Sampler	Express AutoSampler	071406XPS	None	None		
Hot Block 1	Environmental Express	N/A	None	None	Metals Prep	
Hot Block 2	Environmental Express	N/A	None	None	Metals Prep	
Hot Block 3	Environmental Express	N/A	None	None	Metals Prep	
Hot Block 4	Environmental Express	N/A	None	None	Metals Prep	
Hot Block 5	Environmental Express	N/A	None	None	Metals Prep	
Hot Block 6	Environmental Express	N/A	None	None	Metals Prep	
Balance- Top Load	Ohaus Scout II (B-20)	BJ320905	None	None	Methanol Prep	2002
Balance- Top Load	Ohaus Scout II (B-25)	BJ514770	None	None	Methanol Prep	2004
Balance- Top Load	Ohaus Adventurer AR3130 (B-26)	1240-P	None	None		
Balance – Analytical	Ohaus Adventurer (B-24)	1225032523P	None	None		
Hg Analyzer	HYDRAA II	64013	Envoy	Envoy		
Hg Analyzer	Leeman Mercury Analyzer HYDRAAF Gold+	9003	WIN Hg Runner	WIN Hg Runner		
Hg Analyzer 7	Hydra II	64631	Envoy	Envoy		

Equipment (Microbiology Lab)	Manufacture & Description	Serial Number	Operating System	Data Processing System	Location	Purchase
Autoclave	Tuttnauer	1308435	None	None	Microbiology	2011
Incubator BOD	VWR	702499	None	None	Microbiology	2011
Incubator (Plates)	Theclo Precision	11T3	None	None	Microbiology	N/A
Incubator(BOD)	ISOTEMP	317646	None	None	Microbiology	2010
Incubator-Water Bath	INC-2	1200991	None	None	Microbiology	N/A
Refrigerator	R-44	0503MCBR980W0087	None	None	Microbiology	N/A
Incubator (Plates)	Thelco Precision	4-D-5	None	None	Microbiology	N/A

Equipment (Organic Prep)	Manufacture & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
Balance- Top Load (B-46)	Ohaus Adventurer Pro (B-46)	B304755401	None	None	Organic Prep	Pre-2000
Balance- Top Load (B-45)	Ohaus Adventurer Pro (B-45)	B033051054	None	None	Organic Prep	2002
Balance- Top Load (B-42)	Ohaus Adventurer Pro (B-42)	B031331113	None	None	Organic Prep	2007
Balance- Top Load (B-47)	Ohaus Adventurer Pro (B-47)	4755411	None	None	Organic Prep	2013
Buchi -1	Buchi Concentrator System	1000175446	None	None	Organic Prep	2014
Buchi -2	Buchi Concentrator System	1000175108	None	None	Organic Prep	2014
Buchi-3	Buchi Concentrator System	1000175657	None	None	Organic Prep	2014
Buchi-4	Buchi Concentrator System	Not in service	None	None	Organic Prep	N/A
Centrifuge	Thermo Scientific	41394883	None	None	Organic Prep	2014
GPC4	Waters 717	717-000152	None	None	Organic Prep	1992
Microwave-3	MARS 6 CEM	MJ2659 (warranty expires June 2014)	None	None	Organic Prep	2013
Microwave-4	MARS 6 CEM	MJ2198	None	None	Organic Prep	2013
Microwave-5	MARS 6 CEM	MJ2197	None	None	Organic Prep	2013
Microwave-6	MARS 6 CEM	MJ2670	None	None		
Mini Water Bath	Thermo Scientific	234221-1379	None	None	Organic prep	2014
N-EVAP 1	Organomation	59301	None	None	Organic Prep	2014
N-EVAP 2	Organomation	58202	None	None	Organic Prep	2014
Sonicator	Fisher	F550	None	None	Organic Prep	N/A
Sonicator	Bransen	BIO3037527	None	None	Organic Prep	N/A
Sonicator	Misonix	S3000	None	None	Organic Prep	1997
Water Bath 1	Organomation	13385	None	None	Organic Prep	2010
Water Bath 10	Organomation	58394	None	None	Organic prep	2014
Water Bath 11	Organomation	58384	None	None	Organic prep	2014

Water Bath 3	Organomation	58471	None	None	Organic Prep	2010
Water Bath 4	Organomation	58421	None	None	Organic Prep	2014
Equipment (Organic Prep, cont'd)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
Water Bath 5	Organomation	58422	None	None	Organic Prep	2014
Water Bath 8	Organomation	58424	None	None	Organic Prep	2014
Water Bath 9	Organomation	58425	None	None	Organic prep	2013
Water Bath 6	Organomation	58423	None	None	Organic Prep	2014
Water Bath 7	Organomation	58379	None	None	Organic Prep	2014

Equipment (OrganicsLab)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
GC-SC	Hewlett-Packard 5890 / FID / OI4551 / 4560	2443AO3797	HP Chemstation	HP Enviroquant	Organics; Screening	1990
GC-SR	Hewlett-Packard 5890 / FID / Tekmar 7000	2612A07448	HP Chemstation	HP Enviroquant	Organics; Screening	1992
GC-ST	Hewlett-Packard 5890 / FID / NPD / HP 7673 AS / Tek	314OA38871	HP Chemstation	HP Enviroquant	Organics; Screening	1996
GC-SV	Hewlett-Packard 5890 / FID / OI4551 / 4560	LR47-359C / N244460743 / 3336A58859	HP Chemstation	HP Enviroquant	Organics; Screening	1996
GC 7Y/7Zz	Agilent Technologies 6890N / 7683	US00043006 / US12211759 / CN52926441 / CN60931595	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-5G	Agilent Technologies 7890N/7693	CN12131022 / CN12060027 / CN12070097 / U20782/U20781	HP Chemstation	HP Enviroquant	Organics; SVOCs	2008
GC-5Y-5Z	Agilent Technologies 7890N / 7683	CN11461115 / CN11380009 / CN11390012 / CN73342671	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-6G	Agilent Technologies 6890N 7683	CN10611064 / CN44330971 / CN40334835 / U4788 / U18013	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-6y-6z	Agilent Technologies 7890N / 7683	CN11461118 / CN10310044 / CN83252932 / CN73342695	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-7G	Agilent Technologies 6890N 7683	US10606009 / CN53236207 / CN40434847 / U23574/ U24374	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-8Y/8Z	Agilent Technologies 6890N / 7683	US10240121 / GT030513A / CN43038210 / CN40334821	HP Chemstation	HP Enviroquant	Organics; SVOCs	2011
GCMS-4P	Agilent Technologies 5973 / 6890N AS 7683 AS	CN10251017 / US102440773 / CN34727122 / CN61031719	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GCMS-5P	Agilent Technologies 5973 / 6890N AS 7683 AS	CN10222060 / US21844818 / CN52834726 / CN21725012	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-XX	Hewlett-Packard 6890 / Dual ECD / HP 7683 AS	US00022968 / CN32023953 / CN32030876 / U0109 / U0905	HP Chemstation	HP Enviroquant	Organics; SVOCs	1998
GC-UV	Hewlett-Packard 5890 / Dual FID / OI 4551 / 4560	2921A23322	HP Chemstation	HP Enviroquant	Organics; Volatiles	1996
GC-2Y/2Z	Agilent Technologies 6890N 7683	CN10407032 / CN61633946 / US94209706 / US01112207	HP Chemstation	HP Enviroquant	Organics; SVOCs	2004
GC-OA	Agilent Technologies 6890N / 7683	US10240147 / CN23021337 / CN320308791 / U5591 / U7670	HP Chemstation	HP Enviroquant	Organics; SVOCs	2002

Equipment (OrganicsLab)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
GC-YZ/ZZ	Hewlett-Packard 6890 / 6890	US00011065 / 3527A39121 / 3521A42714 / 3511A42110	HP Chemstation	HP Enviroquant	Organics; SVOCs	2008
GC-EF	Hewlett-Packard 5890 / Dual ECD / HP 7673 AS	2541A06786 / 2942A20889 /F1916 / F5562	HP Chemstation	HP Enviroquant	Organics; Volatiles	1992
GC-LM	Hewlett-Packard 6890 / PID / FID / OI 4551 / 4560 P&T	US00008927	HP Chemstation	HP Enviroquant	Organics; Volatiles	1998
GCMS-L	Hewlett-Packard 5890 / 5970 MSD / OI 4551 / 4560 P&T	2921A22898 / 2623A01291	HP Chemstation	HP Enviroquant	Organics; Volatiles	1992
GC-SY	Hewlett-Packard 5890 / FID / OI4551A / 4560	2643A10503	HP Chemstation	HP Enviroquant	Organics; Screening	1990
GC-1G	Agilent Technologies 6890N / 7683	US10322012 / CN23821917 / CN23326744 / U21778 / U5597	HP Chemstation	HP Enviroquant	Organics; SVOCs	2003
GC-2G	Agilent Technologies 6890N / 7683	CN10450110 / CN24922557 / CN45022276 / U17684 / U7668	HP Chemstation	HP Enviroquant	Organics; SVOCs	2005
GC-3G	Agilent Technologies 6890N / 7683	CN10450109 / CN24922566 / CN45022167 / U7666 / U7667	HP Chemstation	HP Enviroquant	Organics; SVOCs	2005
GC-3Y/3Z	Agilent Technologies 7890A / 7683B	CN10735014 / CN74345941 / CN83252932 / CN73342695	HP Chemstation	HP Enviroquant	Organics; SVOCs	2007
GC-4G	Agilent Technologies 6890N / 7693	CN10361136 / CN10340093 / CN10310033 / U17615 / U17614	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC-4Y/4Z	Agilent Technologies 7890A / 7693B	CN10832133 / CN84451068 / CN83252936 / CN73342671	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GCMS-2M	Agilent Technologies 5975 / 6890N AS 7683	CN10612028 / US60532578 / CN4593809290 / US82601187	HP Chemstation	HP Enviroquant	Organics; SVOCs	2012
GCMS-2P	Agilent Technologies 5975C / 7890A / 7693	US10237403 / CN10241022 / CN10210021 / CN10180007	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010
GC – 8G	Agilent 7890A	CN1039N62 / CN10370238	HP Chemstation	HP Enviroquant	Organics; SVOCs	
GC – 9G	Agilent 6890	US00041387	HP Chemstation	HP Enviroquant	Organics; SVOCs	
GCMS-3E	Agilent Technologies 5975 / 6890N / 7683	CN10614011 / US61332852 / CN23326747 / US93901916	HP Chemstation	HP Enviroquant	Organics; SVOCs	2011
GCMS-3M	Agilent Technologies 5975B / 6890N / Agilent 7683B	US65125107 / CN10703029 / CN73943902 / US83801832	HP Chemstation	HP Enviroquant	Organics; SVOCs	2007
GCMS-3P	Agilent Technologies 5975C / 7890A / 7693	CN10361100 / CN10361163 /	HP Chemstation	HP Enviroquant	Organics; SVOCs	2010

GCMS-4M	Agilent Technologies 5975C / 7890A / 7683B	US73317574 / CN1074251 / CN74043923 / CN74145736	HP Chemstation	HP Enviroquant	Organics; SVOCs	2007
Equipment (OrganicsLab)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
GCMS-4P	Agilent Technologies 5973 / 6890N AS 7683 AS	CN10251017 / US102440773 / CN34727122 / CN61031719	HP Chemstation	HP Enviroquant	Organics; SVOCs	2011
GCMS-6P	Agilent Technologies 5973 / 6890N AS 7683 AS	CN10536029 / US52420712 / US10310521 / CN55230259	HP Chemstation	HP Enviroquant	Organics; SVOCs	2011
GCMS-F	Agilent 6890 / 5973 MSD / 7683 AS	US00034179 / US01140200 / CN40327643 / CN138822139	HP Chemstation	HP Enviroquant	Organics; SVOCs	1998
GCMS-M	Hewlett-Packard 6890 / 5973 MSD / HP 7683 AS	US00021813 / US802111003 / US81501001 / CN61038860	HP Chemstation	HP Enviroquant	Organics; SVOCs	1999
GCMS-P	Agilent Technologies 5973 / 6890N AS 7683 AS	US10251064 / US21844598 / CN74145733 / CN24828486	HP Chemstation	HP Enviroquant	Organics; SVOCs	2003
GCMS-R	Agilent Technologies 6890 / 5973 MSD / 7683	US00021820 / US81211033 / US84202752 / CN61639349	HP Chemstation	HP Enviroquant	Organics; SVOCs	2008
GCMS-Z	Agilent Technologies 5973 / 6890N AS 7683 AS	US10251028 / US21844586 / CN24828485 / CN23321564	HP Chemstation	HP Enviroquant	Organics; SVOCs	2003
Balance- Top Load (B-28)	Ohaus Sport (B-28)	7124230518	None	None	Organics; Volatiles	2005
Balance- Top Load (B-34)	Ohaus Adventure AV412 (B-34)	8028391117	None	None	Organics; Volatiles	2007
GC-GH	Hewlett-Packard 5890	2938A25059	HP Chemstation	HP Enviroquant	Organics; Volatiles	1990
GCMS-1A	Agilent Technologies 5973 / 6890N AS 4551A / 4660	CN10314026 / US30945331	HP Chemstation	HP Enviroquant	Organics; Volatiles	2003
GCMS-1B	Agilent Technologies 7890A / 5975C /Teledyne / Tekmar AquaTek AS	CN10845177 / US83111119	HP Chemstation	HP Enviroquant	Organics; Volatiles	2008
GCMS-1C	Agilent Technologies 5973 / 6890N AS 4551 / 4560	CN10425085 / US41746667	HP Chemstation	HP Enviroquant	Organics; Volatiles	2004
GCMS-2A	Agilent Technologies 5973 / 6890N AS Tekmar Solatek 72	CN10314028 / US30945325	HP Chemstation	HP Enviroquant	Organics; Volatiles	2003
GCMS-2B	Agilent Technologies 5973 / 6890N AS 4551A / 4660	CN10441033 / US 43146954	HP Chemstation	HP Enviroquant	Organics; Volatiles	2004
GCMS-2C	Agilent Technologies 5973 / 6890N AS 4551A / 4560	CN10441035 / US 43146953	HP Chemstation	HP Enviroquant	Organics; Volatiles	2004

Equipment (OrganicsLab)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
GCMS-2D	Agilent Technologies 5973 / 6890N AS 4552 / 4560	CN10432038 / US43146771	HP Chemstation	HP Enviroquant	**Organics; Volatiles**	**2004**
GCMS-2E	Agilent Technologies 5975 / 6890N AS 4551A / 4660	CN10612046 / US60532596	HP Chemstation	HP Enviroquant	Organics; Volatiles	2006
GCMS-2H	Agilient Technologies 6890 / 5973	US10123019 / US10440806	HP Chemstation	HP Enviroquant	Organics; Semi-Volatiles	
GCMS-3A	Agilent Technologies 5973 / 6890N AS 4551A / 4660	CN10432042 / US43146776	HP Chemstation	HP Enviroquant	Organics; Volatiles	2004
GCMS-3B	Agilent Technologies 6890 / 5973 / OI 4551A / 4660	US10240044 / US21844015	HP Chemstation	HP Enviroquant	Organics; Volatiles	2002
GCMS-3C	Agilent Technologies 5973 / 6890N AS 45551A / 4660	CN10517038 / US44621480	HP Chemstation	HP Enviroquant	Organics; Volatiles	2005
GCMS-3D	Agilent Technologies 5975B / 6890N AS 4551A / 4660	CN10637120 / US62724193	HP Chemstation	HP Enviroquant	Organics; Volatiles	2006
GCMS -3H	Agilent Technologies 5975B / 6890A/7683	US10250091 / CN24227710	HP Chemstation	HP Enviroquant	Organics; Semi-Volatiles	
GCMS-3V	Agilent Technologies 5975C/7890A/OI 4552/ 4560	US1321790 / CN13141045	HP Chemstation	HP Enviroquant	Organics; Volatiles	2013
GCMS-4B	OI 4660/ OI 4551A/Agilent Technologies 5975C / 7890A	G0444466534P/ F04345BI44/ US10323601 / CN10361158	HP Chemstation	HP Enviroquant	Organics; Volatiles	2010
GCMS-4D	Agilent Technologies 5975C / 7890A	US10237301 / CN10241019	HP Chemstation	HP Enviroquant	Organics; Volatiles	2010
GCMS-4V	Agilent Technologies 5975C/7890A/OI 4100/ 4660	Us13307901 / CN13331029	HP Chemstation	HP Enviroquant	Organics; Volatiles	2013
GCMS-A	Hewlett-Packard 6890 / 5973 MSD / OI 4552 / 4560 ARCHON	US00033272 / US94212183	HP Chemstation	HP Enviroquant	Organics; Volatiles	2000
GCMS-C	Hewlett-Packard 6890 / 5973 MSD / OI 4552 / 4560 ARCHON	2643A122671 / 2807A1146	HP Chemstation	HP Enviroquant	Organics; Volatiles	1990
GCMS-D	Hewlett-Packard 6890 / 5973 MSD / OI 4551 / 4560 ARCHON	US00030551 / US93122843	HP Chemstation	HP Enviroquant	Organics; Volatiles	2001
GCMS-E	Hewlett-Packard 6890 / 5973 MSD / OI 4551 / 4560	US00031161 / US93112044	HP Chemstation	HP Enviroquant	Organics; Volatiles	2001

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GCMS-G	Hewlett-Packard 5890ll / 5970 MSD / OI 4552 / 4660	2919A22540 / 2807A11004	HP Chemstation	HP Enviroquant	Organics; Volatiles	1989
Equipment (OrganicsLab)	Manufacturer & Description	Serial Number	Operating System	Data Processing Software	Location	Purchase
GCMS-I	Hewlett-Packard 5890 / 5970 MSD / OI 4551 / 4560	2623A08318 / 2637A01687	HP Chemstation	HP Enviroquant	Organics; Volatiles	1986
GCMS-J	Hewlett-Packard 5890 / 5970 MSD / OI 4552 / 4560 P&T	2643A11557 / 3034A12779	HP Chemstation	HP Enviroquant	Organics; Volatiles	1990
GCMS-K	Hewlett-Packard 5890l1 / 5970 MSD / OI 4551 / 4560 P&T	2750A116838 / 2905A11628	HP Chemstation	HP Enviroquant	Organics; Volatiles	1990
GCMS-N	Hewlett-Packard 5890 / 5970 MSD / Tekmar 2000 / 2032 P&T	2750A17088 / 2716A10218	HP Chemstation	HP Enviroquant	Organics; Volatiles	1988
GCMS-S	Hewlett-Packard 6890 / 5973 MSD /OI 660 ARCHON	US00024322 / US82311313/ H216466453P / 13295	HP Chemstation	HP Enviroquant	Organics; Volatiles	2000
GCMS-T	Hewlett-Packard 6890 / 5973 MSD / OI 4551A / 4660 P&T	US00024323 / US82311482	HP Chemstation	HP Enviroquant	Organics; Volatiles	2000
GCMS-U	Hewlett-Packard 6890 / 5973 MSD / HP 4551A / 4660	US00032623 / US94212203	HP Chemstation	HP Enviroquant	Organics; Volatiles	1999
GCMS-V	Agilent Technologies 5973 / 6890N AS 4552 / 4560	US10149085 / US10441917	HP Chemstation	HP Enviroquant	Organics; Volatiles	2002
GCMS-X	Agilent Technologies 5973 / 6890N AS 4552 / 4660	US21843889 / US10239071	HP Chemstation	HP Enviroquant	Organics; Volatiles	2002
GCMS-Y	Agilent Technologies 5973 / 6890N AS 4552 / 4560	US10240013 / US21844012	HP Chemstation	HP Enviroquant	Organics; Volatiles	2002
GC-PF	Agilent Technologies 6890N AS 4552 / 4560	US10235024 / 12995 / J542460192	HP Chemstation	HP Enviroquant	Organics; Volatiles	2002
PH Meter-13	VWR IS B20	5942	None	None	Sample Management	2010
Balance- Top Load (B-33)	Ohaus Adventure AV412 (B-33)	8028391184	None	None	Sample Management	2007
Balance- Top Load (B-30)	Ohaus Adventurer AV412 (B-30)	8026391160	None	None	Screen	2005